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Office of the Legislative Auditor

State of Montana

Report to the Legislature

November 1992

Performance Audit Report

Management of Forested Trust Land

Department of State Lands

This report contains information concerning issues pertaining to management of forested trust land. The report addresses:

- Revenue generated by sales of forest products.
- Need for and funding of the Private Forestry Assistance Program.
- Need for and funding of the Conservation Planting Program.

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November 1992

The Legislative Audit Committee
of the Montana State Legislature:

This is our program audit of Management of Forested Trust Land, administered by the Department of State Lands.

This report contains information to the legislature concerning revenue generated by sales of forest products, and the need and funding of two programs within the Forestry Division. Department responses are contained at the end of the report.

We wish to express our appreciation to the staff of the department for their cooperation and assistance.

Respectfully submitted,

Scott A. Seacat
Legislative Auditor

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Office of the Legislative Auditor

Performance Audit

Management of Forested Trust Land

Department of State Lands

Members of the audit staff involved in this audit were: Jim Nelson and Mary Reynolds-Zednick.

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State Board of Land Commissioners	Stan Stephens, Governor Marc Racicot, Attorney General Mike Cooney, Secretary of State Nancy Keenan, Superintendent of Public Instruction Andrea "Andy" Bennett, State Auditor
Department of State Lands	Dennis Casey, Commissioner
Field Operations Division	Randy Mosley, Administrator
Forestry Division	Don Artley, State Forester Jeff Jahnke, Assistant Administrator
Forest Management Bureau	Vacant
Service Forestry Bureau	Paul Klug, Chief
Nursery and Grounds Bureau	Roger Bergmeier, Chief
Fire Management Bureau	Tim Murphy, Chief

Report Summary

Introduction

Our program audit concentrated on the Forest Management Program administered by the Forestry Division, Department of State Lands. The objectives of the audit included providing information to the legislature concerning the responsibilities of Forestry Division, the revenue generated by sales of forest products, and the extent the division should be involved in activities other than managing trust land. To gather information concerning these issues we visited land and unit offices and the division office in Missoula.

Responsibilities of Forestry Division

The State Forester position was created in 1909 to execute all matters pertaining to forestry in the state, control all firewardens in Montana, and take any necessary actions within the bounds of state law to prevent and extinguish forest, brush, and grass fires. Through legislation or changes in state government, the Forester's responsibilities have increased to include giving technical and practical advice to farmers concerning soil and forest conservation, operating a tree nursery, providing a work program for inmates at the Swan River Forest Camp, and enforcing streamside management zone statutes.

From inception, the State Forester has reported to several different entities. When the position was originally created, the State Forester was appointed by the governor but reported to the Board of Land Commissioners pertaining to matters concerning land management and functions of the position. From 1939 to 1971 the State Forester also reported to the state Board of Forestry. In 1971 the position of State Forester was transferred to the Department of Natural Resources and Conservation and became a division administrator. In 1981 the functions were transferred to the Department of State Lands.

Forest Management Program

Federal lands were granted to the state of Montana when Montana was admitted to the Union. The Enabling Act of 1889 (25 STAT. 679) granted Montana land for support of common schools, state universities, and other state institutions. Montana's constitution gives the Board of Land Commissioners the authority to direct and control the care, management, and

disposition of trust lands. Any use of the lands must result in income to the intended trust beneficiary.

The Department of State Lands (DSL) is charged with management of state school trust lands under the direction of the Land Board. The Forest Management Program is responsible for the care, management, and disposition of classified forest trust land. The overall purpose of the program is to manage classified forest trust land to provide income to the various trust beneficiaries. Income is derived from sale of forest products and leasing and licensing forest trust lands for various purposes such as grazing, cabin sites, and commercial uses.

Are Sales of Forest Product Generating Revenue?

We found sales of forest products are accomplishing the stated purpose of the program, which is to generate income to trust funds. Through the harvesting of trees from timber sales, timber permits, and posts and poles, approximately $28.2 million was transferred to trust accounts from fiscal year 1986-87 through 1991-92. Expenditures to conduct and monitor sales of forest products were approximately $14.3 million for the same time period, of which General Fund expenditures totaled about $8.8 million. The remaining activities were financed by $234,000 of Federal Special Revenue and $5.3 million of State Special Revenue moneys.

Overall, we found sales of forest products from fiscal year 1986-87 through 1991-92 contributed an average of $1.98 to the trust for every dollar in expenditures. This amount does not include interest earned by the trust funds. The General Fund rate of return from sales of forest products for fiscal years 1986-87 through 1991-92 was $3.22 for every dollar spent. If the program was not funded and the General Fund money needed for the program was placed directly in the trust accounts, it would have yielded approximately $1.07 for every dollar invested.

Will Timber Sales Continue to Generate Revenue?

Based upon our audit work, we believe timber sales will continue to generate revenue for the trusts given current price and inventory of timber, environmental requirements, access constraints, and staffing of the program.

DSL has estimated that given current staffing, and existing environmental and legal requirements, and access constraints, it can sell and monitor the harvesting of 25 to 27 million board feet per year for the next biennium. At this rate DSL would need to receive a minimum of $62 per thousand board feet before it would be more advantageous for the state to invest the money spent on sales of forest products instead of expending the money to sell timber. At a sale price of $120 per thousand board feet per year, a minimum of 14 million board feet would need to be cut before it would be more advantageous for the state to invest the money spent on sales of forest products instead of expending the money to sell timber. In fiscal year 1991-92, approximately 31 million board feet was cut.

If the staffing level of the Forest Product Sales Program were increased by seven Full Time Equivalents, DSL estimates it could sell 30 to 35 million board feet per year for the upcoming biennium. Using department assumptions, this increase in staff could create $3.6 to $6.1 million for the trust funds. The rate of return would be $1.88 to $3.19 for every General Fund dollar spent.

What Affects Sales of Forest Products?

Our audit showed a number of items cause harvest levels to be less than biological sustained yield. Cumulative effects on water quality and wildlife habitat are one of the primary items which limit the amount of forest products which can be sold in a given area. If the area around trust timber to be sold has already been harvested by another party, this has a bearing on how much, if any, timber DSL can harvest from trust land. In some cases the harvest has to be delayed for a number of years; in other cases the amount of timber which can be harvested is restricted.

DSL has to ensure sales comply with state laws relating to water quality, streamside management zones, air quality, the Montana

Environmental Policy Act (MEPA), and the Montana Antiquities Act. Federal laws include the Threatened and Endangered Species Act for grizzly bears, wolves, bald eagles, etc. Ensuring they are in complete compliance with these laws has required extra time in compiling a timber sale package.

Access to state land has also affected the sale of forest products. Adjacent landowners, particularly east of the Continental Divide, sometimes restrict access to trust land so field personnel cannot conduct sales on that land.

What is DSL Doing to Ensure a Resource in the Long-Term?

Forestry Division officials conduct a number of different activities to ensure a forest resource in the long-term. One such activity is harvesting a volume of timber which is close to or below biological sustained yield. The division also uses forest management practices such as clearing brush and debris left after a timber sale to reduce the fire hazard, and prepare the land for future timber crops. Trees are planted after some sales instead of waiting for natural regeneration, and also to ensure superior trees will grow in the area. Access to trust land in the future is ensured by entering into road cost share agreements with other landowners in the area.

Are There Other Methods to Generate Revenue for the Trust?

There are methods to generate revenue to the trust funds other than selling forest products but DSL was not actively pursuing other uses at the time of our audit. Some money is currently collected for leases of cabin sites, grazing and agricultural leases, easements, and leases and licenses for special uses but it is minimal.

DSL is contemplating obtaining money from forested trust land by means other than sale of forest products. These means include:

-- issuing more special use licenses.
-- managing the land for wildlife habitat and then issuing use permits to outfitters to guide people on hunting trips on forested trust land.

-- billing the Department of Fish, Wildlife and Parks if that agency does not want DSL to harvest timber because of wildlife concerns in a particular area.

Conclusion

The overall purpose of the Forest Management Program is to manage classified forest trust land to provide income to the various trusts. We found during our program audit the Forestry and Field Operations Divisions have been meeting this purpose and it appears they will continue to do so in the future.

It appears current staffing and resources within the division will continue to maintain the timber resource and provide long-term income to school trust accounts. However, there is potential for increased revenue. Since the overall purpose of the program is to maximize income to the trust accounts we believe the department should do the following items:

-- complete its detailed inventory of trees on forested trust land which will help them better define biological sustained yield;
-- develop a longer range plan which estimates sustained yield for more than two years and takes into consideration access constraints and environmental and legal requirements;
-- if it appears DSL can harvest more timber, request additional resources. The result would be increased money to the trust, and a harvest level which is not above biological sustained yield; and
-- continue to evaluate and implement other methods of deriving income from forested trust land.

Private Forestry Assistance Program

The Private Forestry Assistance (PFA) Program comprises all activities performed in response to service requests from private owners of nonindustrial forest land. Service foresters can assist landowners in such areas as timber sales, reforestation, timber stand improvement, and pest management. The program is funded partially by General Fund money but only 600 to 700 people in the state use the service. Also, there are private consultant foresters who provide essentially the same type of service.

We believe the department should review overall forestry priorities and determine if there is a need for the PFA Program since there are consultant foresters who can provide essentially the same service. If it is determined there is a need for the program, the department should determine the basis for funding the program. We believe the landowners who use the program should be charged fees commensurate with the General Fund costs of operating the program.

Conservation Planting Program

The purpose of the Conservation Planting Program is to provide low cost seedlings for establishment of shelterbelts around homes, buildings, and livestock feeding areas of agricultural producers; wildlife plantings; field windbreaks; living snowfences; energy conservation; Christmas tree production; critical area plantings such as for erosion control and soil conservation; and reclamation plantings. Most of the plants are for conservation plantings. The program is funded partially from the General Fund.

In conjunction with selling seedlings for conservation plantings, DSL participates in the Montana Inter-Agency Tree or Shrub Improvement Study (MITOSIS). The intent of the program is to develop a coordinated effort among state and federal agencies to select and evaluate hardier conifers and hardwood trees and shrubs needed to carry out the agencies' conservation programs. The program is funded entirely from General Fund moneys.

Few people directly benefit from the Conservation Planting and MITOSIS Programs due to restrictions for use of seedlings, acreage needed (10 acres or more), and the minimum number of seedlings which must be ordered (250 seedlings). Although purchasers pay for the majority of expenditures of the Conservation Planting Program, the general public is subsidizing both programs through use of General Fund money. We believe DSL should review overall forestry priorities and determine if there is a need for the sale of conservation planting seedlings. If it is determined there is a need for the program, the department should determine the basis for funding the program. We believe people who use the program should pay for the seedlings provided. Purchasers should be charged for the actual costs to

produce the seedlings, including the costs for the MITOSIS Program.

Institutional Forestry Work Program

The Institutional Forestry Work (IFW) Program is a joint program between DSL and the Department of Corrections and Human Services (DCHS). It was established to provide work for residents at the Swan River Forest Camp.

Since its inception, the role of the camp has changed, but the IFW Program has remained virtually the same. This change of direction by one agency but not the other has created some concerns in both departments. One of the questions under consideration is the correctional authority of DSL employees over inmates. At the time of our audit, DSL employees had no correctional or disciplinary authority over inmates. This caused employees some concern since inmates are under the supervision of DSL employees every day.

We believe DCHS should determine if there is still a need for the IFW Program. If it is determined the program is still beneficial to the inmates of the camp, DCHS and DSL should review DSL's role and make any necessary changes.

Expenditures for the IFW Program are recorded in DSL's budget. We believe expenditures for the program should be included in DCHS's budget to accurately reflect the actual amount expended for the treatment and rehabilitation of inmates.

Chapter I
Introduction

Introduction

In 1982 the Legislative Audit Committee requested an audit of the acquisition, management, and disposition of state-owned land (82P-17). The audit did not include a review of the management of state-owned forested trust land under the administration of the Forestry Division, Department of State Lands (DSL). These lands were not included because management of the land had been recently transferred to the Department of State Lands from the Department of Natural Resources and Conservation. This audit addresses current management of forested trust land.

The Forestry Division is not only responsible for managing forested school trust land, but also administers other forestry programs. We are issuing separate reports regarding DSL's administration of the Fire Management Program (91P-34), and Forestry Equipment Program (91P-35).

Audit Objectives

The objectives of this program audit were to provide information to the legislature concerning:

1. The responsibilities of the Forestry Division.
2. Functions of various programs administered by the Forestry Division.
3. Revenue generated by sales of forest products.
4. The extent the division should be involved in activities other than managing trust land.

This information is presented so the legislature can compare the current operation and priorities of the Forestry Division to those the legislature believes are necessary. Many programs administered by the division were created a number of years ago. Since inception of some of the programs, significant changes have been made in funding sources and program objectives. In the 1950s and 1960s, the state received federal support for some programs which, in some cases, is no longer provided. Other programs created by the legislature no longer appear to accomplish their original objectives. One program was

transferred from one state entity to another because the program was no longer compatible with the first entity's long-range objectives.

This report focuses on forest management issues to provide a basis for the legislature or the department to establish policy through legislative action, if necessary. Recommendations on efficiency, effectiveness, and compliance were not within the scope of the audit work and are not discussed.

Audit Scope

The audit was conducted in accordance with government auditing standards for performance audits. The audit centered on the operation of the various programs administered by the Forestry and Field Operations Divisions, Department of State Lands. We focused on selected programs in the Forest Management, Service Forestry, and Nursery and Grounds Bureaus. We did not review Fire Management Bureau programs during this audit since a separate audit was conducted concurrently. Programs selected for review in the Forest Management Bureau were chosen because they generate revenue for trust accounts. The other programs were chosen for review due to their changing roles or funding sources.

We interviewed division staff and employees, and reviewed records in Missoula, Helena, and local land and unit offices. We also interviewed members of the Board of Land Commissioners. Personnel in the United States Forest Service and the wood products industry were interviewed to determine their views on the programs administered by the Forestry Division.

Questionnaires were sent to people who requested assistance through the division's Private Forestry Assistance Program to determine if the program was beneficial, what services they requested, and if the services were provided in a timely manner. We also sent questionnaires to people who purchased seedlings from the State Forest Tree Nursery to determine why they obtained seedlings from DSL, how the seedlings were used (windbreaks, shelterbelts, wildlife habitat improvement, etc.),

how they learned about the program, and if they thought the program was beneficial.

Information was gathered from the Bureau of Economic Research, University of Montana, and the United States Forest Service, to determine the relative impact of DSL's Forest Product Sales Program on the wood products industry. We also gathered information concerning the impact of the wood products industry on Montana's economy.

We reviewed Board of Land Commissioners' and state Board of Forestry meeting minutes for historical information and policy decisions. We also reviewed legislative committee meeting minutes pertaining to applicable state laws.

Information was gathered from department records and the State-wide Budgeting and Accounting System to determine Full-Time Equivalents (FTE) allocated to each program, accomplishments in each program, and program expenditures for fiscal years 1984-85 through 1991-92.

Report Organization

This report is presented in five chapters. Chapter I summarizes the objectives and scope of our program audit.

Chapter II presents background information on the operation of the Forestry and Field Operations Divisions. The chapter includes a description of the organization of the department and the divisions. Information concerning forest land which is producing commercial timber in Montana is also contained in Chapter II.

Chapter III provides information concerning the Forest Product Sales Program administered by the Forest Management Bureau.

Chapter IV examines the Private Forestry Assistance Program.

Chapter V discusses the State Forest Tree Nursery sale of seedlings for conservation plantings and reforestation of nontrust land. It also discusses the Institutional Forestry Work Program

administered by the Forestry Division for residents of the Swan River Forest Camp.

Chapter II
Background

Introduction

Federal lands were granted to the state of Montana when Montana was admitted into the Union. The Enabling Act of 1889 (25 STAT. 679) granted the state 5,863,645 acres. Sections 16 and 36 in each township or in lieu sections were granted for support of common schools. The Enabling Act also created smaller trusts which provide income for the state universities and other state institutions. Montana's 1972 Constitution reaffirms the state's acceptance of the Enabling Act's terms.

The position of State Forester was established by the legislature in 1909 to manage 586,700 acres of forested trust land granted the state. The State Forester is now the administrator of the Forestry Division, Department of State Lands (DSL).

Since creation, the State Forester position has had a history of two distinct functions. The State Forester has been responsible for trust land with a specific mission and goal to generate income to the trust. The position has also been responsible for activities on private land such as fire suppression, reduction of fire hazards created from harvesting timber, and assistance in management of forested land. This dual role continues today.

To understand how the above functions were acquired by the State Forester, the following section describes the chronology of the position and duties.

State Forester Functions

The 1909 Legislature created the position of State Forester under the direction and control of the Board of Land Commissioners (Land Board). Under supervision of the Land Board, the Forester had general charge of the state's timberland. The Forester's responsibilities included:

1. Executing all matters pertaining to forestry within the jurisdiction of the state;

2. Control of all firewardens in the state;

3. Directing the protection and improvement of state parks and forests;

4. Taking any necessary action within the bounds of state law to prevent and extinguish forest, brush, and grass fires; and

5. Enforcing the laws pertaining to forest and brush covered lands.

Functions Pertaining to Trust Land

In 1911 state law (currently section 77-5-103(1), MCA) was amended to direct the State Forester to ". . . do all the field work in the selection, location, examination, appraisement, and reappraisement of state timberlands."

In 1923 the Land Board ordered timber sales on trust land, and matters pertaining to timber, be handled by the State Forester. All matters connected with leasing of trust land, besides timberland, were to be handled by the State Land Commissioner. In 1924 the board ordered all applications for use, permits, and leases of forest trust land be made to and through the State Forester.

In 1925 the Legislature authorized the State Forester to sell the timber crop and other forest crops on trust land (currently section 77-5-201, MCA). The State Forester was also directed to supervise all state timber sales, secure payment for all timber before it was cut, and secure the most complete utilization of all forest products consistent with current lumbering practices (currently section 77-5-206, MCA). These duties have changed very little since then. Instead of just supervising state timber sales as directed in 1925, the department is now ordered to supervise all aspects of timber management on trust land.

The 1897 Legislature required the person cutting timber from trust land to remove logging debris so as to prevent fires. In 1947 the Board of Land Commissioners approved a timber sale with a contract provision which required a deposit of one dollar per thousand board feet to dispose of slash resulting from logging operations. The practice became standard in 1949. Land Board meeting minutes indicate the State Forester initiated collection of money for timber stand improvement in 1954. In

1963 legislation was passed allowing the board to set fees for brush disposal and timber stand improvement.

In 1977 the legislature directed the State Forester to establish and maintain forest fire control training programs for state fire fighters and other persons requiring training (section 77-5-103(4), MCA).

Section 77-2-318, MCA, enacted in 1989, gave the Board of Land Commissioners statutory authority to sell cabinsites located on forested trust land. The State Forester makes recommendations to the Commissioner of the Department of State Lands whether to sell cabinsite land. The Commissioner presents the recommendations to the Land Board.

All of the above trust land duties are the present charges of the Department of State Lands and the State Forester.

Addition of Other Functions

Over the years, other duties besides those pertaining to forested trust land have been added to the functions of the State Forester. The following sections discuss the additional duties.

Give Technical and Practical Advice - The functions of the State Forester were expanded in 1939 to include giving technical and practical advice to farmers of the state concerning soil and forest conservation, and establishment and maintenance of woodlots, windbreaks, and shelterbelts. Section 76-13-104, MCA, was expanded in 1974 to allow the State Forester to give advice concerning range and water.

Control of Diseases and Pests - In 1953 the State Forester was given authority under section 76-13-301, MCA, to declare zones of infestation caused by forest insect pests or forest tree diseases injurious to the timber or forest growth on forest lands within the state. The State Forester could then enter the land within the zone and suppress, eradicate, and destroy the pest or disease in a manner approved by the board. The Board of Land Commissioners must approve the declaration of zones.

Control of Slash - Section 76-13-Part 4, MCA, enacted in 1959, expanded the State Forester's duties to private land. This statute requires the State Forester to supervise and inspect the reduction or management of all slash and debris resulting from harvesting forest products, timber stand improvement, and right-of-way clearing on private land. Slash and debris needs to be reduced or managed so as to decrease the potential of fire spreading through the cutting area or adjacent areas.

Forest Tree Nursery - In 1962 the Board of Land Commissioners recommended the State Forest Tree Nursery, then operated by the University of Montana, be placed under the Office of the State Forester. Administration of the nursery was transferred in 1963.

Forest Camp Work Program - In 1967 the legislature created the Swan River Forest Camp for juveniles under the Department of Corrections and Human Services. The State Forester was directed to provide a work program for male juveniles (section 53-30-205, MCA).

Best Management Practices - Under section 76-13-131, MCA, enacted in 1989, the State Forester is required to provide private forest owners or operators information concerning Best Management Practices upon notification the person is conducting forest practices.

Streamside Management Zones - In 1991, the State Forester was allowed to inspect forest practices on any federal, state, or private land in Montana to assess compliance with the streamside management zone statutes (section 77-5-Part 3, MCA) and administrative rules.

Dual Reporting Responsibilities

From inception, the State Forester has reported to several different entities. When the position was originally created the person was appointed by the governor, and provided the governor with an annual report, yet reported to the Board of Land Commissioners pertaining to matters concerning land management and functions of the position.

Starting in 1939, the State Forester also reported to the state Board of Forestry. The function of the board was to cooperate in an advisory capacity with the state Water Conservation Board and all public and other agencies in the development, protection and conservation of the forest, range, and water resources in the state of Montana. The State Forester brought issues before the board pertaining to forestry practices on trust and private land in Montana. Many of the same topics discussed with the Land Board were brought before the State Board of Forestry. For example, the reorganization of the State Forester's Office was discussed with the Board of Forestry. Reforestation of harvested areas of trust land and the work program for the residents at the Swan River Forest Camp were brought before both boards.

The state Board of Forestry was sunsetted when the Office of the State Forester was transferred to the Department of Natural Resources and Conservation in 1971. The State Forester became a division administrator under the direction of the department director. The Board of Natural Resources became the advisory board.

The role of the Land Board also changed at that time. The Land Board no longer dealt with matters on private forested land or with internal functions of the office. Approving timber sales, land exchanges, selling of cabinsites, approving road cost share agreements, and granting right-of-ways are now the types of matters brought before the Land Board pertaining to management of forested trust land.

In 1981 the functions of the State Forester transferred to the Department of State Lands. The commissioner of the department reports to the governor and legislature pertaining to matters concerning the functions of the department, and to the Land Board for matters pertaining to trust land. Although there has been no specific advisory board concerned with forestry practices in the state since 1971, staff within the Forestry Division are involved with specific organizations related to such matters as water quality, wildlife management, timber supply, and forestry.

Chapter II
Background

Forestry Program Organizational Structure

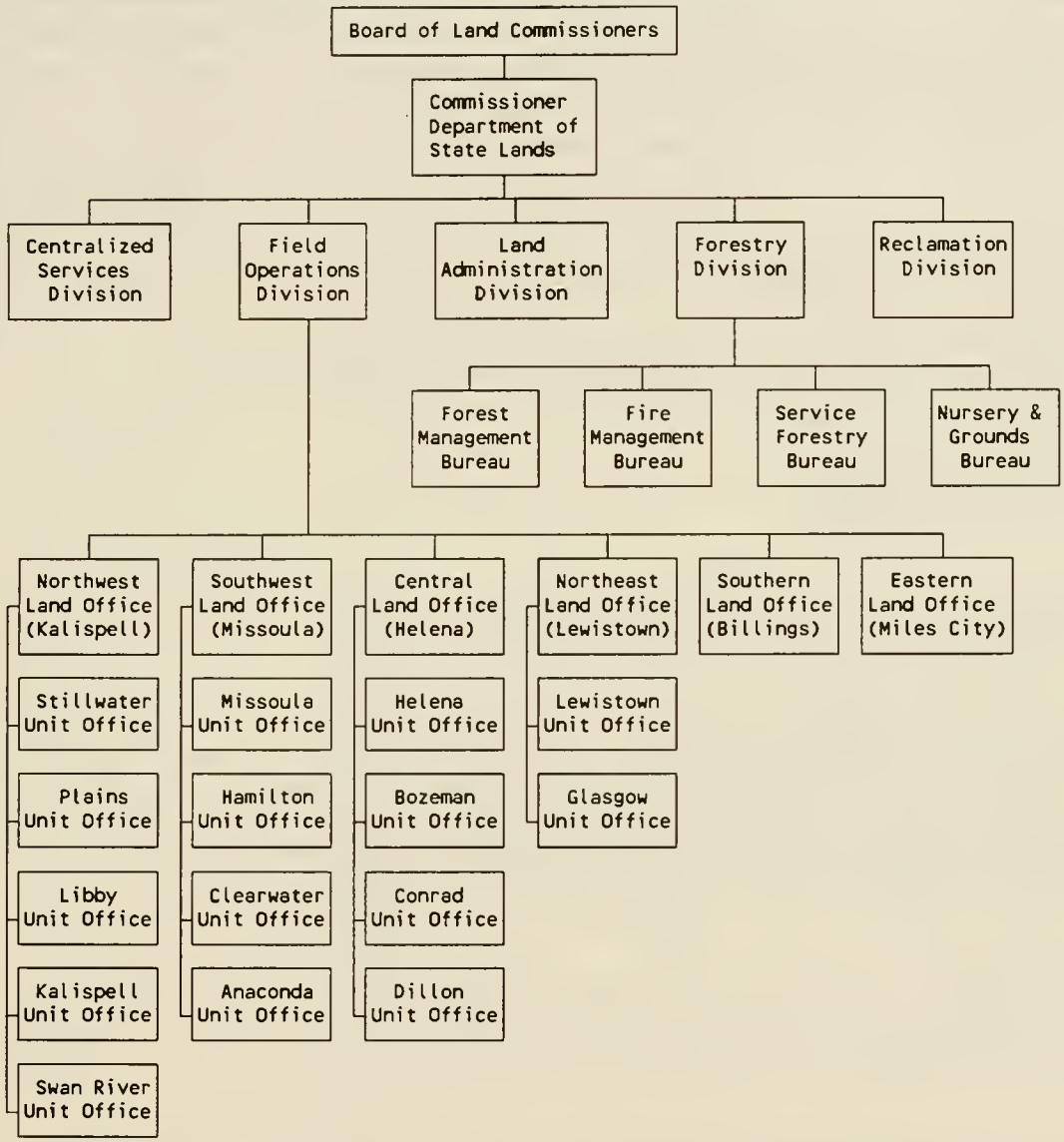
Two divisions within the Department of State Lands are responsible for the administration and implementation of the forestry program. The Forestry Division, headquartered in Missoula, Montana, is primarily a staff organization. Its role is to manage the forestry budget, establish and maintain goals, objectives, guidelines and performance standards, and provide support to the Field Operations Division.

The role of the Field Operations Division is to conduct the day-to-day field level activities in support of the department's forestry, mine reclamation, and grazing and agriculture trust land programs. Division staff also serve as the department's local representative within defined geographical areas.

The following figure details the organization of the department and the two divisions.

Figure 1

Organization Chart of the Department of State Lands



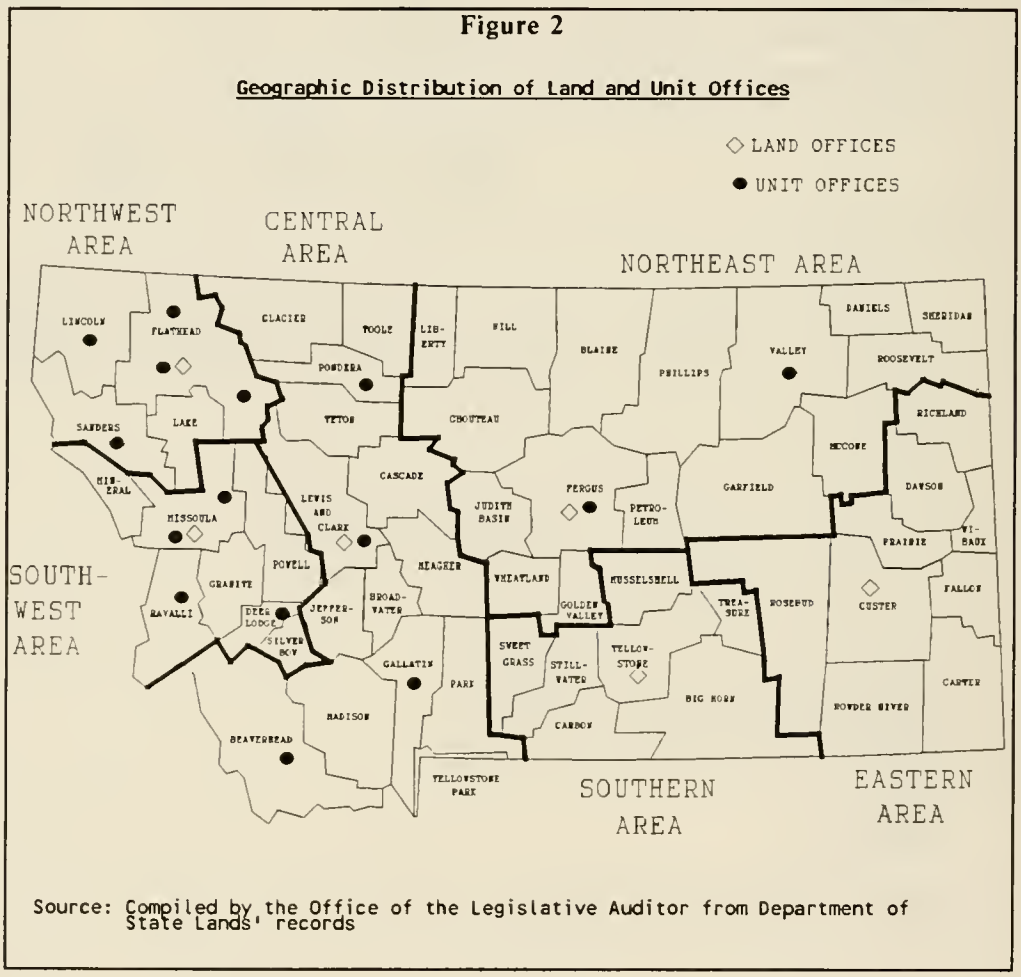
Source: Department of State Lands

Department Geographic Organization

The department has six administrative areas in the state. Each area is administered by a separate land office organized and staffed to provide support. As noted in the previous chart, unit offices are established in four of the six land office areas. Unit offices conduct field activities within specified portions of the geographic area of the land office. The following figure illustrates the geographic distribution of the land and unit offices.

Figure 2

Geographic Distribution of Land and Unit Offices



Source: Compiled by the Office of the Legislative Auditor from Department of State Lands' records

Programs Administered by Forestry Division

Within the Forestry Division, the Fire Management, Forest Management, Service Forestry, and Nursery and Grounds Bureaus administer the different forestry-related programs. The following sections describe the programs administered by each bureau.

Fire Management Bureau Programs

The Fire Management Bureau administers programs which are intended to protect the state's natural resources from destruction by fire. A total of 3,344,257 acres of state and private land, 694,665 acres of United States Bureau of Land Management land, and 949,877 acres of United States Forest Service land are directly protected by the Fire Management Bureau's programs. An additional 45,354,643 acres are protected under the State-County Cooperative Fire Protection Program. The following describes each program:

Equipment Development and Support - acquires Federal Excess Personal Property and converts the equipment into usable fire equipment for state and local government fire departments.

Fire Prevention - investigates fires, gathers fire data, analyzes annual changes and trends, and designs ongoing actions to reduce preventable fires. A portion of the program also consists of reviewing and approving fire prevention plans from counties and DSL land and unit offices. The program provides public education programs such as "Keep Montana Green," and "Smokey Bear."

Presuppression - encompasses all activities in preparing to detect and suppress wildland fires. Fire fighters are employed and trained to provide this service as well as maintain road and trail access to areas for which DSL is responsible.

County Fire - trains and organizes local government fire fighters, provides fire equipment based on a county fire plan, and assists counties in fighting fires which have exceeded their capabilities. Counties use the equipment to provide prevention, presuppression, and suppression work to all land not protected directly by DSL or a federal wildland agency.

Suppression - detects and suppresses wildland fires.

Prescribed Fire - reduces fire hazards, improves forage and wildlife habitat, and trains people in fire suppression activities, with a secondary goal of preventing wildfire through fuel management. Management of smoke created from prescribed fires is also within this program.

Fire Administration - updates and maintains master agreements with the United States Forest Service, the United States Bureau of Land Management, and the United States Bureau of Indian Affairs, and attempts to balance acres of protection between federal agencies and DSL. Fire administration duties also include establishing agreements with local government fire services and other state agencies involved with disaster services.

Community Fire Protection - awards federally funded contracts to local communities and rural areas for prevention, organizing, training, and equipping Montana's fire fighting organizations.

Fire Training - provides training to permanent and seasonal DSL employees, local government fire fighters, and emergency fire fighters to meet the requirements of various fire fighting positions.

Fire Coordination - coordinates fire fighting resources (personnel and equipment) with the Northern Rockies Coordination Center, State Disaster and Emergency Services, and the Montana National Guard to fight fires at the state level. Fire billing, communication engineering, and data processing are other coordination services provided. This program also maintains fire assessment rolls, collects annual payments for fire protection, and administers all protection subcontracts.

Forest Management Bureau Programs

The Forest Management Bureau is responsible for managing classified forest trust land to provide income to the various school trusts. This is accomplished through a number of different programs which are described below.

Forest Product Sales - grows, harvests, and sells forest products from trust land.

Resource Management - provides support to field foresters in forest land management planning, hydrology, soils, economics, wildlife, and fisheries.

State Land Administration - executes and administers all special uses (such as land leases and licenses), easements, land exchanges, and access acquisition on forest trust land.

Forest Development - provides for use of brush disposal and timber stand improvement fees on timber cut on trust land. The fees are used for work which accomplishes hazard reduction (brush disposal), site preparation, reforestation, genetic tree improvement, and other timber stand improvement work.

Service Forestry Bureau Programs

The Service Forestry Bureau administers programs which provide services to private landowners to help them comply with state forestry laws and achieve their own forestry-related objectives for their land. The bureau administers the following programs:

Timber Slash - implements state laws pertaining to control of timber slash and debris. The laws provide for reduction of fire hazards caused by slash and debris from logging, road construction, or other cuttings on private forest lands.

Forest Practices - provides information, education, and enforcement to help people comply with voluntary and statutory measures designed to protect soil, water, and wildlife resources during timber harvest and related operations.

Forestry Assistance - provides a range of services to private forest landowners and economic development organizations. It is intended to help Montanans do forestry work which results in good land stewardship, an improved environment, personal profit, and general economic development.

Community Forestry - offers professional advice, technical services, and financial aid in establishing and maintaining trees in urban areas.

Forest Pest Management - provides training and technical services for managing and controlling damaging insects and diseases on Montana's state and private forests.

Nursery and Grounds Bureau Programs

The Nursery and Grounds Bureau administers programs which produce tree seedlings for reforestation on trust land and conservation plantings on other lands; develops, repairs and maintains the Missoula complex of buildings; and coordinates activities between the Forestry Division and the Swan River Forest Camp work program. The following sections describe the programs administered by this bureau.

Conservation and Shelterbelt Seedlings - grows low-cost bareroot hardwood and containerized conifer seedlings to sell to landowners for windbreaks and shelterbelts, erosion control, wildlife habitat improvement, reforestation, Christmas trees, living snow fences, mined land reclamation, and other conservation uses.

Containerized Seedlings for Timber Stand Improvement - grows containerized conifer seedlings for reforestation planting on trust forest land.

Montana Interagency Tree or Shrub Improvement Study (MITOSIS) - provides genetically superior seed or cutting material for production of seedlings for conservation planting in Montana. MITOSIS also includes cooperative tree and shrub improvement efforts with 13 other states and two Canadian provinces.

Institutional Forestry Work - provides forestry work for the residents of the Swan River Forest Camp. The program is carried out in cooperation with the Department of Corrections and Human Services.

Buildings and Grounds - repairs and maintains the 185-acre Forestry Division and Southwest Land Office complex in Missoula.

Expenditures and FTE

The Forestry Program is funded from General, State Special Revenue, and Federal Special Revenue Fund moneys. State Special Revenue funds are generated from the sale of nursery stock to landowners, assessments to private landowners for fire protection, and a portion of the revenue generated from timber sales for brush and timber stand improvement (the remaining money goes to school trust funds). The following table shows

the expenditures and funding sources for the four programs for fiscal year 1991-92.

Table 1
Forestry Program Expenditures and Funding*
(Fiscal Year 1991-92)

	Fire** Management	Forest Management	Service*** Forestry	Nursery and Grounds	Total
Expenditures					
Personal Services	$2,729,828	$2,194,737	$ 681,588	$535,355	$6,141,508
Operating Expenses	911,928	519,898	151,222	218,174	1,801,222
Equipment	340,998	90,763	183,116	2,590	617,467
Total	$3,982,754	$2,805,398	$1,015,926	$756,119	$8,560,197
Funding					
General Fund	$2,115,640	$1,969,849	$ 385,489	$435,277	$4,906,255
State Special	$1,573,673	$ 782,911	$ 227,013	$320,842	$2,904,439
Federal Special	$ 293,441	$ 52,638	$ 403,424	$ 0	$ 749,503

* Does not include Centralized Services, or Forestry Division administrative expenses.
** Does not include supplemental funds used to fight fires.
*** Does not include $159,585 of federal pass through funds.

Source: Compiled by the Office of the Legislative Auditor from Statewide and Budgeting Accounting System records

Staffing and FTE

In fiscal year 1991-92, the Department of State Lands was authorized 360 Full-Time Equivalents (FTE) by the legislature. Approximately 239 of the 360 FTE were authorized for forestry activities. Forestry Division was allocated approximately 57 permanent and 12 seasonal FTE. Field Operations Division was allocated 109 permanent and 61 seasonal FTE for forestry activities. FTE in the various land and unit offices are allocated based upon the workload of each program in the geographic area. The following table indicates the number of FTE budgeted in each program by bureau and land office for fiscal year 1991-92.

Table 2
Distribution of Forestry Related Personnel by Program
(Budgeted for Fiscal Year 1991-92)

Program/Location	FTE Permanent	FTE Seasonal
Fire Management Program		
Bureau	22.30	3.12
Northwest Land Office	13.78	20.32
Southwest Land Office	10.81	17.93
Central Land Office	9.73	12.62
Northeast Land Office	2.35	0.00
Southern Land Office	3.20	0.10
Eastern Land Office	1.25	0.00
Total for Program	63.42	54.09
Forest Management Program		
Bureau	16.00	0.00
Northwest Land Office	26.78	4.04
Southwest Land Office	10.35	3.49
Central Land Office	7.21	1.82
Northeast Land Office	1.05	0.00
Southern Land Office	0.60	0.00
Eastern Land Office	0.40	0.00
Total for Program	62.39	9.35
Service Forestry Program		
Bureau	9.00	0.00
Northwest Land Office	8.34	0.49
Southwest Land Office	5.51	0.66
Central Land Office	2.74	0.24
Northeast Land Office	0.80	0.00
Southern Land Office	0.70	0.00
Eastern Land Office	0.35	0.00
Total for Program	27.44	1.39
Nursery and Grounds Program		
Bureau	5.75	8.62
Northwest Land Office	6.54	0.00
Total for Program	12.29	8.62
Total FTE for All Programs	165.54	73.45

Source: Compiled by the Office of the Legislative Auditor from Department of State Lands' records

Distribution of Forest Trust Land

The total amount of trust commercial timberland managed by land offices is about 590,000 acres. Commercial timberland is defined as forest land that is producing, or is capable of producing, crops of industrial wood and is not withdrawn from timber utilization by statute or administrative regulation. Both

classified forest trust land and classified grazing trust land contain commercial timberland. Land is classified as forest land if it is principally valuable for the timber that is on it, for the growing of timber, or for watershed protection. Land is classified as grazing land if it is principally valuable for grazing purposes.

Most trust commercial timberland (72 percent) is on classified forest land. The largest portion of classified forest land (65 percent) is in the Northwest Land Office (NWLO). The Southwest Land Office (SWLO) has the next largest holding (28 percent), followed by the Central Land Office (CLO) with 7 percent. Minor amounts of commercial forest land are located on classified grazing land in the Northeast Land Office (NELO) and the Southern Land Office (SLO). No commercial forest land is found in the Eastern Land Office (ELO). The following table shows acres of commercial timberland by land office and land classification.

Table 3
Acres of Commercial Timberland

Land Offices	Acres of Classified Forest Land with Timber	Acres of Classified Grazing Land with Timber	Total
	thousand acres		
NWLO	274.3	1.7	276.0
SWLO	126.1	12.1	138.2
CLO	21.7	79.3	101.0
NELO	N/A	N/A	27.1
SLO	N/A	N/A	30.4
ELO	0.0	14.0	14.0
Statewide	422.1	107.1	586.7

N/A - Specific acreage estimates are not available.

Source: Department of State Lands' records from a 1979 inventory of state and private land

Not all commercial timberland can be efficiently managed for timber. Commercial timberland is deferred from management for one of five reasons as determined by the department:

-- other land uses preclude timber management;
-- topography precludes timber management, given current technology;
-- excessive moisture makes logging impractical;
-- productivity is so low sustained yield management is financially impossible; and
-- current market conditions make sustained yield management financially impossible.

At least 101,700 acres of the 586,700 acres of commercial timberland managed by all land offices is in the deferred category. The NWLO has the largest number of deferred acres and also has the most commercial timberland. The CLO has fewer acres deferred but that acreage represents more than one-third of their total commercial timberland. The SWLO has the fewest number of acres deferred. No deferred acreage estimates were available for the NELO, SLO, and ELO. The following table shows acres of commercial timberland by land office and by operable and deferred land classification.

Table 4
Acres of Operable and Deferred Commercial Timberland

Land Office	Operable Lands	Deferred Lands	Total
	thousand acres		
NWLO	223.5	52.5	276.0
SWLO	127.3	10.9	138.2
CLO	62.7	38.3	101.0
NELO	27.1	N/A	27.1
SLO	30.4	N/A	30.4
ELO	14.0	N/A	14.0
Statewide	485.0	101.7	586.7

N/A - Deferred acreage estimates are not available.

Source: Department of State Lands' records from a 1979 inventory of state and private land

Do DSL's Wood Products Sales Affect Montana's Economy?

Information gathered during our audit indicates the Department of State Lands' sales of wood products has a minimal effect on Montana's economy. The forest product industry represents 14 percent of Montana's basic labor income and 10 percent of basic employment. Department sales contribute a relatively small portion of the wood products to the industry. Information from the Bureau of Business and Economic Research, University of Montana, shows approximately 3 percent of the wood products received by Montana mills in 1990 were from DSL. Mills in some counties received up to 9 percent of their wood products from DSL, while other mills received less than the 3 percent average.

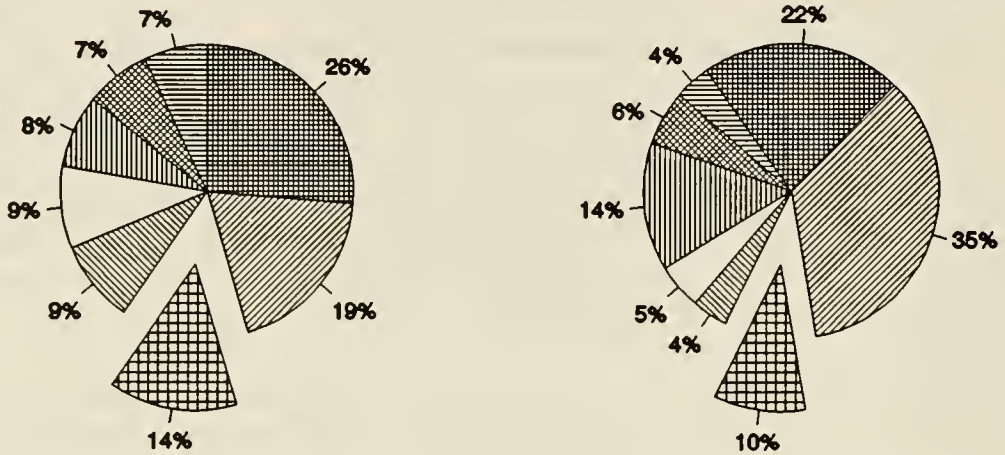
The following sections provide detail concerning the basic make-up of Montana's economic base, and the contribution of DSL's timber to the economy.

Impact of Timber on Montana's Economic Base

The forest products industry includes logging, lumber and wood products manufacturing, services involved in timber management, and paper products manufacturing. The following charts show the make-up of Montana's economic base by basic industry from 1986-90. Retail sales, state and local government, and service industries are not included in figure 3 since those industries derive their income from people within the state. The industries depicted in the figure are largely financed from funds outside of Montana.

Figure 3

Current Make-up Of Montana's Economic Base, 1986-90
Industry Shares of Basic Industry
Income and Employment



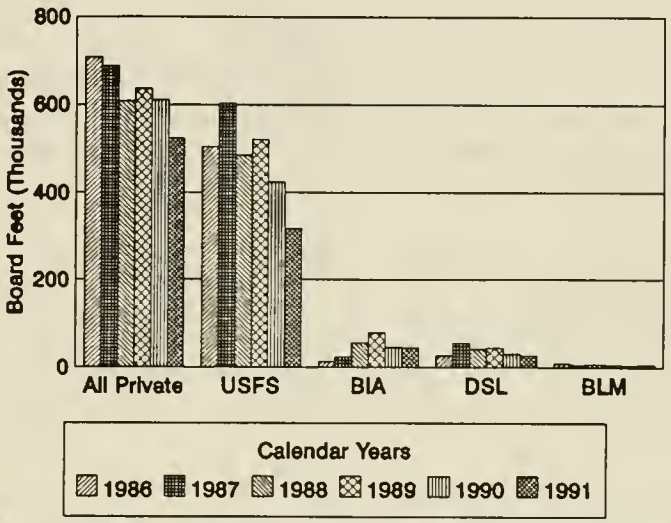
Source: Bureau of Business and Economic Research, University of Montana

What is DSL's Contribution to the Industry?

DSL timber represented about 3 percent of the total volume of timber harvested in Montana in 1991. Over one-half of the timber harvested in 1991 was from private land. The United States Forest Service contributed about 35 percent of the timber harvested. The following graph details the volume of timber harvested from various sources in Montana.

Figure 4

Timber Volume Harvested in Montana, by Ownership Source
(1986 through 1991)



Source: Compiled by the Office of the Legislative Auditor from United States Forest Service records

Many of the western counties in Montana contain mills which receive timber products. The mills primarily rely on timber from either private or National Forest land. The following chart details the source of timber products by the county in which the mill is located.

Table 5

Source of Timber Products Received by Mills by County of Plant Location
(Montana, 1988 and 1990)

County Group	Percent of Total Volume Received: National Forest		Other Public*		Private		Total	Million Board Feet Received		Percent of Total Board Feet	
	1988	1990	1988	1990	1988	1990		1988	1990	1988	1990
Beaverhead, Powell, Ravalli Silver Bow	66%	54%	9%	9%	25%	37%	100%	131	118	10.9%	10.1%
Broadwater, Lewis & Clark, Meagher, Gallatin, Park, Madison	23%	29%	3%	3%	74%	68%	100%	97	98	8.1%	8.4%
Flathead, Lincoln	47%	39%	3%	2%	50%	59%	100%	547	554	45.5%	47.6%
Lake, Missoula, Granite	14%	20%	7%	3%	79%	77%	100%	286	265	23.8%	22.7%
Mineral, Sanders	69%	65%	4%	4%	27%	31%	100%	100	97	8.3%	8.3%
Other Counties	15%	21%	3%	3%	82%	78%	100%	42	33	3.4%	2.8%
TOTAL	40%	37%	4%	3%	56%	60%	100%	1,203	1,165	100.0%	100.0%

* Other public lands are those managed by the Department of State Lands, and the United States Department of Interior, Bureau of Land Management. Harvest from tribal land is included in private harvest.

Source: Bureau of Business and Economic Research, University of Montana

Chapter III
Forest Management Program

Introduction

Montana's Constitution gives the Board of Land Commissioners (Land Board) the authority to direct and control the care, management, and disposition of trust land. The Land Board is composed of the Governor, Attorney General, Secretary of State, Superintendent of Public Instruction, and State Auditor. The Governor chairs the meetings. In the exercise of its powers, the guiding rule and principle for the board is that the land and funds are held in trust for the support of education.

While all trust land is considered state owned, any use of the land must result in income to the intended trust beneficiary such as the common schools, agricultural college, School for the Deaf and Blind, etc. Montana's Constitution states any use of the trust land must not only result in income, but "full market value."

The Land Board's direction and control follows two principles. The first is the concept of sustained yield, which was confirmed by the Montana Supreme Court. It is within the discretion of the board to receive less income currently, if this action will maintain the long term productivity of the land and guarantee income to the beneficiaries in the long run. The second principle is that any activities on trust land must be in compliance with state and federal statutes.

The Department of State Lands (DSL) is charged with management of state school trust land under the direction of the Land Board. The Forest Management Program is responsible for the care, management, and disposition of classified forest trust land. The overall purpose of the Forest Management Program is to manage classified forest trust land to provide income to the various trust beneficiaries. Income is derived from sale of forest products and leasing and licensing forest trust land for various purposes such as grazing, cabin sites, and commercial uses.

Responsibilities of land and unit office personnel and the Forest Management Bureau are to:

-- manage the timber resource to produce sustainable income;

-- improve forest productivity;

-- provide for multiple use of forest land through issuance of leases and/or licenses;

-- improve management efficiency by maintaining an active land exchange program, and acquire reliable access to forest trust land;

-- acquire and maintain accurate land and resource inventory information;

-- protect, as required by law, soil and watershed values, wildlife and fisheries habitat, and cultural and recreational resources; and

-- provide statewide forest inventory information on forest resources in Montana.

The sections in this chapter discuss the manner in which DSL personnel are managing trust land, and deriving income for trust accounts from forested trust land. Included in the sections is a discussion of sustained yield, and what the department does to maintain the long-term productivity of the land.

Forest Management Program FTE and Expenditures

Most land and resource management is completed by field personnel in land and unit offices. Each land office is budgeted for forestry functions. In fiscal year 1991-92, 16 Full-Time Equivalents (FTE) were budgeted in the Forest Management Bureau to administer the program, and 46.39 FTE were budgeted for the field to conduct on-site forest management activities.

Of the 46.39 permanent FTE budgeted to land offices, the majority (29.6) were allocated to the forest product sales function. Land administration was allocated 11.3 permanent FTE. The remaining FTE in the land offices were distributed between brush disposal and timber stand improvement.

The Northwest Land Office was budgeted most of the FTE since the majority of classified forest trust land is under the jurisdiction of that office. Approximately 27 permanent FTE were budgeted for that office, with 17 allocated to the forest product

sales function. The Southwest Land Office was budgeted 10.4 FTE, 6.3 of which were for forest product sales. Seven FTE were budgeted to the Central Land Office. Four of the seven FTE were for forest product sales. Approximately two FTE were budgeted to the Northeast, Southern, and Eastern Land Offices for forest product sales and land administration.

In addition to permanent FTE, the Northwest, Southwest, and Central Land Offices are budgeted a total of 9.35 seasonal FTE to assist with field activities. These people help with brush disposal projects and timber stand improvement. The Northwest Land Office is allocated the most seasonal FTE (4.04), with the Central Land Office the least (1.82).

Program Expenditures

Funding for the Forest Management Program is provided primarily through General and State Special Revenue Funds. Collections from timber sales for brush and timber stand improvement generate the State Special Revenue funds. The following table details expenditures for the Forest Management Program, by funding source, for the bureau and land offices.

Table 6
Expenditures for the Forest Management Program
(Fiscal Year 1991-92)

	Forest Management Bureau			Land Offices		Nursery and Grounds Bureau	
	General Fund	State Special Revenue	Federal Special Revenue	General Fund	State Special Revenue	State Special Revenue	Total
Brush Administration					$149,942		$ 149,942
TSI Administration					128,054		128,054
TSI Projects					114,276	$80,923*	195,199
Brush Projects		$ 23			312,436		312,459
Forest Product Sales	$ 47,591			$1,063,677	910		1,112,178
Land Administration	50,113			402,812			452,925
Forest Inventory	100,129						100,129
Tree Improvement Lands		49,046	$ 9,692				58,738
State Land Management	154,614						154,614
Special Uses	42,313						42,313
Water Quality Tech Srvc	108,600						108,600
IRIS Project DNRC		28,224					28,224
Federal Rebate			42,946				42,946
Total	$503,360	$77,293	$52,638	$1,466,489	$705,618	$80,923	$2,886,321

*Expenditures for growing seedlings used to reforest trust lands.

Source: Compiled by the Office of the Legislative Auditor from Statewide Budgeting and Accounting System records

The Northwest Land Office incurred over one-half of the land offices' expenditures. In fiscal year 1991-92 expenditures for the Northwest Land Office totaled $1,183,183. The Southwest Land Office had expenditures of $540,480. Central Land Office had expenditures of $377,469; the Northeast Land Office spent $40,240; the Southern Land Office spent $16,364; and the Eastern Land Office had expenditures of $14,371.

Are There Procedures to Follow When Selling Timber?

Our review confirmed the Forest Management Bureau has specific procedures and field personnel are following those procedures when selling timber. The activities followed to grow, harvest, and sell timber from school trust land are summarized in the next sections.

Land Offices Develop Harvest Plans

In February or March of each year, land offices submit timber harvest plans to the Forest Management Bureau. The plans are compiled from information provided by each unit office. Plans from each office are distributed to the bureau hydrologists, soil scientist, and wildlife biologist for review. These staff conduct a preliminary review of the sales listed on the plan for the upcoming year and, if there is time, the next year. Concerns and comments about water quality, soils problems, or wildlife concerns in the upcoming sales are returned to the unit offices.

Timber Sale Packages are Compiled and the Timber is Sold

As sales for each year progress through the process, actual stands of trees to be cut are located. The unit office forester creates a preliminary forest management prescription. The prescription details preliminary objectives, and possible alternatives, for management of the land. The objectives include such things as which stands of trees to cut, how to mechanically remove trees from the area, how to dispose of debris and residue resulting from harvesting, and how to reforest the land.

The specialists (DSL's hydrologists, soil scientist, archeologist, and a biologist from the Department of Fish, Wildlife, and Parks) are often taken on the site and specific comments and concerns are obtained. The field forester initiates contacts with necessary landowners for access across their land. The forester also notifies members of the public or organizations who may be interested in the sale.

Upon obtaining the specialists' comments, the field forester compiles a final forest management prescription. The forester completes an environmental assessment. This assessment indicates the impact of the sale on such things as wildlife habitat, water quality, soil quality (such as erosion and compaction), air quality from burning debris, and historical and archaeological sites. Roads through the sale area are designed. Trees are cruised and marked to determine the approximate volume of timber to be harvested. Post-sale treatment plans for the land are also created. These plans include brush and timber stand improvement

appraisals, assignment of the burning of the brush, and, if DSL is going to plant seedlings, a nursery order for seedlings.

Field foresters in unit offices compile all of the above information into a timber sale package. The package is sent to the land office for review. Depending on the size of the land office, one to three people review the package. In larger land offices, one person will review the forest management prescription, while another will review the order for seedlings and send it to DSL's nursery. A third person will review the package for completeness and reasonableness. If anything does not appear reasonable or is missing, the person in the land office will discuss the problems with the forester in the unit office.

After the land office reviews the package it is sent to the Forest Management Bureau. At the bureau, the package is reviewed by the specialists and the State Land Management Section supervisor for compliance with administrative guidelines. The section supervisor also uses the information provided to determine the appraised value of the timber, less the costs of logging, road construction, and brush and timber stand improvement. This is the amount used as the minimum acceptable bid.

After the package is reviewed by section staff, it is sent to the bureau program assistant who writes the notice of sale and the agenda item for the Board of Land Commissioners. The board approves or denies the timber sale.

Upon board approval, state statute requires the sale be advertised for bid for thirty days in the newspaper in the county of the sale. In cases of emergency due to fire, insect, fungus, parasite, or blowdown, timber sales of less than one million board feet can be advertised for a minimum of ten days. Emergency sales do not need board approval.

If the timber sale is complicated, the field forester who compiled the package conducts a tour of the sale area for prospective bidders. This allows bidders to ask any questions concerning the sale and do their own cost analysis of any needed road construction. Bids are opened and the department can accept or reject

the highest bid. The highest bidder is usually awarded the contract. The contractor has 45 days to submit the signed contract, a performance bond, and a payment bond or advance stumpage payment.

After receipt of the signed contract, and before the timber is harvested, the field forester meets with the contractor. They discuss provisions in the contract and the forester answers any questions concerning the sale.

Timber Sales are Monitored by Field Foresters

When the contractor begins work, roads are constructed and timber is harvested. During construction and harvesting, the field forester monitors the actions of the contractor. Inspection reports are submitted to the land office and the Forest Management Bureau. The field forester usually visits the sale once or twice during each week of activity. The field forester has the authority to halt work if the contractor does not follow the terms of the contract.

Harvested Logs are Measured

When logs are removed from the sale area, the land office scaler measures (scales) the logs to determine the number of board feet in the logs harvested. A statistical sample of truck loads of logs is taken at each mill to which the contractor delivers. The total number of board feet brought to each mill is projected from the sampled loads to all the loads.

The Contractor is Billed for the Timber

Scaling information is sent to the Forest Management Bureau. This information is used by bureau personnel to determine the amount to bill the contractor for the harvested logs. The contractor pays for logs removed, and for brush disposal and timber stand improvement (TSI). The department can charge up to $11 per thousand board feet for brush disposal and $22 per thousand board feet for TSI. Money received from harvested logs is distributed to the trust account corresponding to the land from which timber was removed. Money for brush disposal and TSI is placed in a state special revenue account.

Sales are Closed

After the contractor finishes harvesting, the field forester conducts a final inspection to determine if all provisions of the contract are met. The information is sent to the land office, which ensures all the payments for the timber were received. The information is then sent to the Forest Management Bureau. The accounting technician ensures there are no outstanding bills. If the accounts are cleared, the bureau chief sends a letter to the contractor indicating the sale is closed and the contractor is released from any liability concerning the sale.

Brush and TSI Plans are Implemented

After the final inspection, the field forester determines if land treatments per the forest management prescription and burn plan are needed. If trees are to be planted, the forester administers the planting contract. The following autumn the forester will conduct survival checks to determine how many planted trees survived. If natural regeneration is allowed to take place, the forester conducts a regeneration survey about five years after the area was harvested. If the area has not regenerated naturally, the forester will explore alternatives for regeneration, such as planting nursery trees.

Are There Procedures for Issuing Timber Permits?

Our audit work also confirmed specific procedures are in place when issuing timber permits. Permits for cutting timber to be used for commercial purposes can be issued without advertising. The maximum amount which can be cut is 100,000 board feet. Timber permits can also be issued in cases of emergency due to fire, insect, fungus, parasite, or blowdown. The maximum which can be cut under these conditions is 200,000 board feet.

Prior to issuing a permit, an environmental assessment is prepared, the timber is cruised, and the boundaries of the sale are marked. The unit office manager makes recommendations to the land office for the permit. Upon approval by the land office, the unit drafts a permit form. The unit does not need land office approval to issue a permit for non-sawlog trees to be used by the permittee for posts and poles.

Two types of permits are issued for sawtimber. One is issued on a lump sum basis. The permittee harvests the timber within harvest boundaries for a specified amount. The other permit is issued for a specified amount per thousand board feet and DSL bills for the amount harvested. The dollar amount charged for either permit is based on comparable value. DSL staff compare the type of timber in the permit to the type of timber in sales. DSL normally receives $50 to $2,000 for a permit. Permits usually last less than a year. Permittees generally must obtain their own right-of-way for a permit.

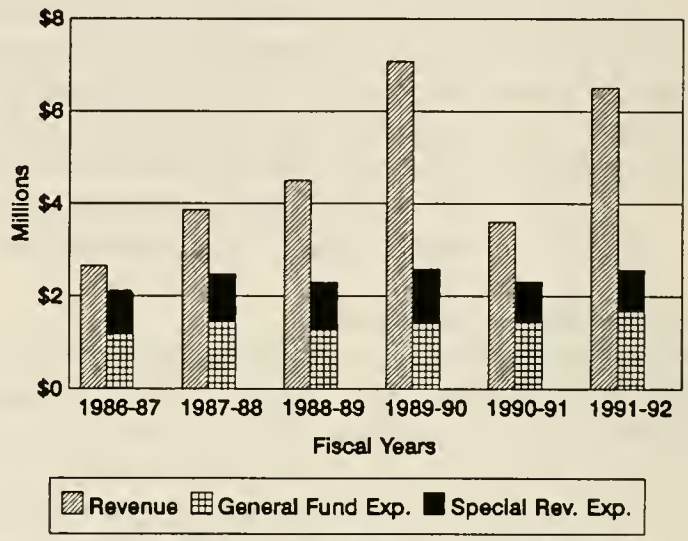
Are Sales of Forest Products Generating Revenue?

We found sales of forest products are accomplishing the stated purpose of the program, which is to generate income to trust funds. Our work showed the state earns more selling timber than if the General Fund money expended in a given year for the program were invested at the beginning of that fiscal year. The following sections detail our findings.

What is the Revenue Generated Compared to Program Costs?

The largest contributor of income to the trust from forested trust land is the sale of sawtimber. Trees sold for posts and poles and Christmas trees account for a small percentage of the money transferred to trust accounts. Through the harvesting of trees from timber sales, timber permits, and posts and poles, approximately $28.2 million was transferred to trust accounts from fiscal year 1986-87 through 1991-92. Expenditures for sales of forest products were approximately $14.3 million for the same time period, of which General Fund expenditures totaled about $8.8 million. The remaining activities were financed by $234,000 of Federal Special Revenue and $5.3 million of State Special Revenue moneys. The following figure shows the amount of money transferred to trust accounts compared to expenditures, by funding source, for fiscal years 1986-87 through 1991-92. Revenues were generated from timber sales, timber permits, and sales of timber for posts and poles.

Figure 5
Comparison of Expenditures, by Source, to Revenue to the Trust Accounts
(Fiscal Years 1986-87 through 1991-92)



Source: Compiled by the Office of the Legislative Auditor from Department of State Lands' & Statewide Budgeting & Accounting System records

What is the Amount of Return?

We compared revenue generated for the trusts to expenditures for fiscal years 1986-87 through 1991-92. Overall, we found sales of forest products contributed an average of $1.98 to the trust for every dollar in expenditures. This amount does not include interest earned by the trust funds. The General Fund rate of return from sales of forest products for fiscal years 1986-87 through 1991-92 was $3.22 for every dollar spent.

If the program was not funded and the General Fund money needed for the program was placed directly in the trust accounts, it would have yielded approximately $1.07 for every dollar invested. State Special Revenue Fund moneys expended by the program are generated from sales of forest products so they would not be available to invest if timber was not sold.

Depositing Money Earned in Fiscal Year 1992-93

The January 1992 Legislative Special Session passed legislation which amended the language of section 20-9-341(1)(c), MCA, to allow the state to directly deposit money from sales of forest products into the income and interest fund. This allows the principal to be distributed to the appropriate school fund, as is other income from renewable resources. Prior to passage of Chapter 14, the money was deposited in the permanent trust and 95 percent of the interest earned on the money was allocated to the appropriate school fund. The amendment terminates June 30, 1993, at which time money from sales of forest products will again be deposited in the permanent fund. Although this change does not affect the rate of return the department achieves for sales of timber products, it does reduce the amount of interest earned by the permanent fund and later allocated to the school funds.

Which Land Offices Generate Revenue to the Trust?

Not all land offices cover expenses for forest product sales with timber sales, timber permits, or sales of posts and poles. Our audit found the Northwest (NWLO) and Southwest (SWLO) Land Offices generated 93.9 percent of the total revenue transferred to trust accounts from sales of forest products for fiscal years 1986-87 through 1991-92. The Central (CLO) Land Office contributed 5.8 percent. The three eastern land offices contributed the remaining amount.

The three eastern land offices contribute very little revenue to trust accounts from sales of forest products. However, since fiscal year 1989-90 the number of sales of forest products has increased in the Northeast (NELO), Southern (SLO), and Eastern (ELO) Land Offices. There appear to be two primary reasons for increased interest in the timber in the eastern part of the state. One is that the price of timber makes it more profitable for mills in Montana and surrounding states to harvest timber in that area. The other is that there are not as many environmental concerns, such as habitat for threatened and endangered species, effects on water quality from other parties harvesting of trees, cumulative effects, etc., in the eastern part of Montana. In

addition, since there is more demand for timber, the department is selling more timber by advertising for bids.

Although sales are increasing in the three eastern land offices, the revenue generated does not yet cover the cost of conducting the sales. At the time of our audit, the division was evaluating the cost effectiveness of conducting additional timber sales in eastern Montana.

The following sections describe in detail the sales and revenue generated by each land office.

How Many Timber Sales Has Each Office Conducted?

The Northwest Land Office has the largest proportion of timbered land, so understandably the most timber sales are sold through that land office. The three land offices in eastern Montana have the least amount of timber, and thus conduct few sales. Since fiscal year 1980-81, there have been nine timber sales, for a total of 3.2 million board feet, sold in the three land offices in the eastern part of the state. The following chart shows by land office the number of timber sales and volume of timber sold in sales from fiscal year 1980-81 through fiscal year 1991-92.

Table 7

Number of Timber Sales and Volume Sold by Land Office
(Fiscal Years 1980-81 through 1991-92)

	NWLO		SWLO		CLO		NELO, SLO, & ELO		TOTAL	
Fiscal Year	No. Sales	Million Board Feet	No. Sales	Million Board Feet	No. Sales	Million Board Feet	No. Sales	Million Board Feet	No. Sales	Million Board Feet
91-92	5	11.38	5	5.76	4	1.71	1	0.27	15	19.12
90-91	6	8.01	2	2.67	7	4.85	4	1.58	19	17.11
89-90	9	13.20	9	12.26	5	4.10	2	0.53	25	30.09
88-89	12	22.37	9	12.10	6	4.31	0	0	27	38.78
87-88	10	27.74	5	9.26	5	6.65	0	0	20	43.65
86-87	13	29.80	9	9.37	3	4.41	0	0	25	43.58
85-86	12	30.12	9	13.69	6	5.79	0	0	27	49.60
84-85	9	16.19	2	4.94	1	0.20	1	0.48	13	21.81
83-84	11	20.77	6	3.55	2	0.38	0	0	19	24.70
82-83	8	17.76	5	9.24	1	0.71	0	0	14	27.71
81-82	8	18.31	3	5.71	2	0.24	1	0.06	14	24.32
80-81	11	29.07	4	6.17	2	1.60	0	0	17	36.84

Source: Compiled by the Office of the Legislative Auditor from Department of State Lands' records

What Has Caused the Decrease in Sales?

As indicated in the previous chart, the number of sales and board feet sold has decreased since the high of fiscal year 1985-86. The decrease in sales and board feet sold can be primarily attributed to DSL's efforts to minimize environmental impacts from sales of forest products on trust land.

To help field staff ensure they follow environmental requirements, bureau and field personnel wrote standards and guidelines, and provided information concerning the documentation needed to comply with the Montana Environmental Policy Act (MEPA) enacted in 1971. It has taken time for field staff to assist in writing the standards and guidelines, and to learn how to implement them. Officials believe sales will start to increase in fiscal year 1992-93.

How Much Revenue Does Each Land Office Generate?

Since there are few sales in eastern Montana, little revenue is transferred to the trust from those land offices. Since fiscal year 1986-87, the Northeast Land Office has transferred $7,872 to the trust from timber sales. The Southern Office transferred $15,581 to the trust from timber sales in fiscal year 1991-92. Timber was sold in the Eastern Land Office but the contractors who won the sales had not yet started harvesting the timber from those sales during our audit.

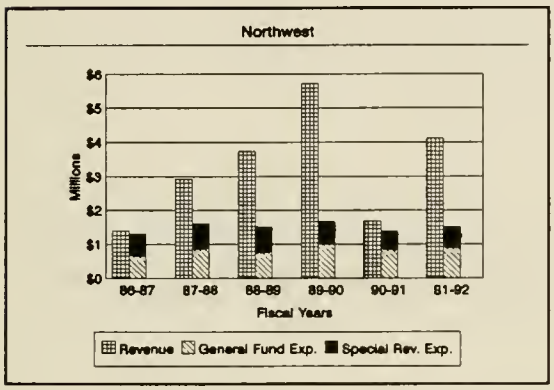
Timber permits and sale of trees for posts and poles have generated some revenue for the trust from the three eastern land offices. From fiscal year 1986-87 through 1991-92, the Northeastern Land Office generated $24,616 for trust funds; the Southern Land Office generated $22,016; and the Eastern Land Office generated $17,385 for trust funds from sale of timber permits and posts and poles.

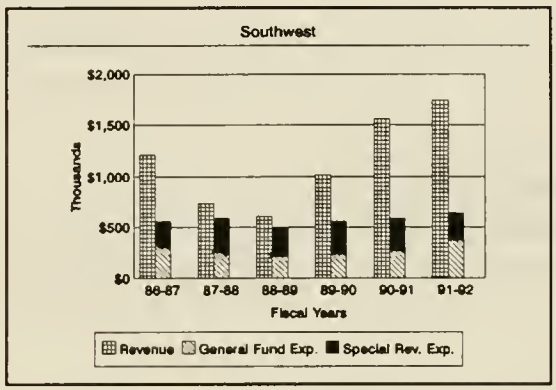
Figure 6 compares the total revenue to trust accounts to expenditures, by funding source, for fiscal years 1986-87 through 1991-92 for each land office. Revenue was generated through timber sales, timber permits, and sales of timber for posts and poles. (Note: Charts not all to the same scale.)

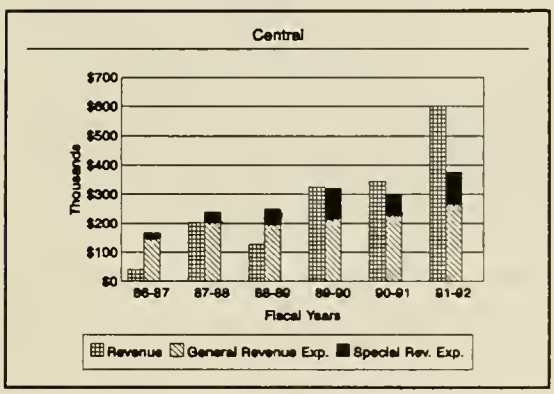
Figure 6

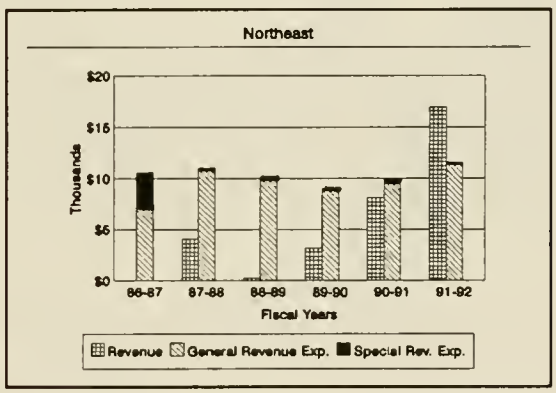
Comparison of Expenditures, by Source, to Revenue to Trust Accounts by Land Office

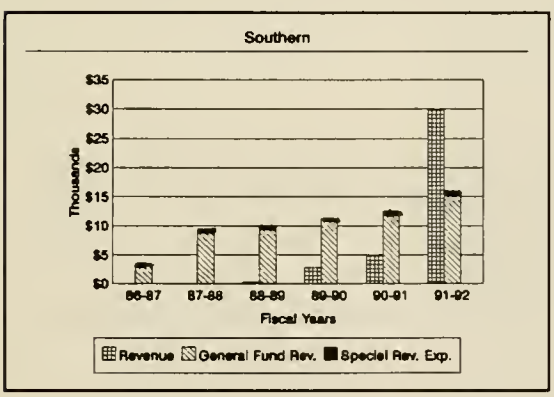
(Fiscal Years 1986-87 through 1991-92)

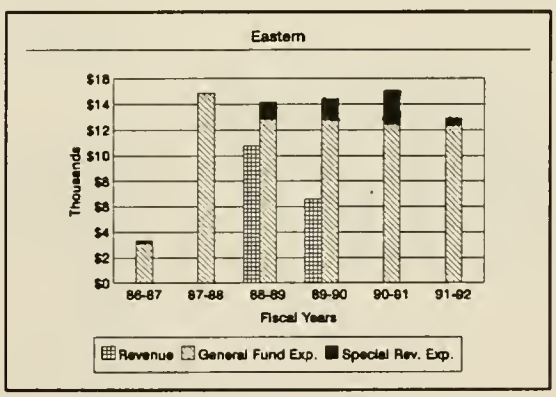












Source: Compiled by the Office of the Legislative Auditor from Department of State Lands' and Statewide Budgeting and Accounting System records

Approximately one-third to one-half of the costs of the three eastern land offices are for division, bureau, and land office administration. The remaining costs pertain to the forest products sales program and, until the last few fiscal years, were incurred primarily in the timber permit and posts and poles processes.

Will Timber Sales Continue to Generate Revenue?

Based upon our audit work, we believe timber sales will continue to generate revenue for the trusts given current price and inventory of timber, environmental requirements, access constraints, and staffing of the program.

DSL has estimated that given current staffing, and existing environmental and legal requirements, and access constraints, it can sell and monitor the harvesting of 25 to 27 million board feet per year. At this rate DSL could receive a minimum of $62 per thousand board feet before it would more advantageous for the state to invest the money spent on sales of forest products instead of expending money to sell timber. At a sale price of $120 per thousand board feet per year, a minimum of 13.9 million board feet could be cut before it would be more advantageous for the state to invest the money spent on sales of forest products instead of expending the money to sell timber.

The following sections discuss how we calculated the price of timber and rate of return, and the environmental and legal requirements, and staffing levels which influence the amount of timber that can be sold each year.

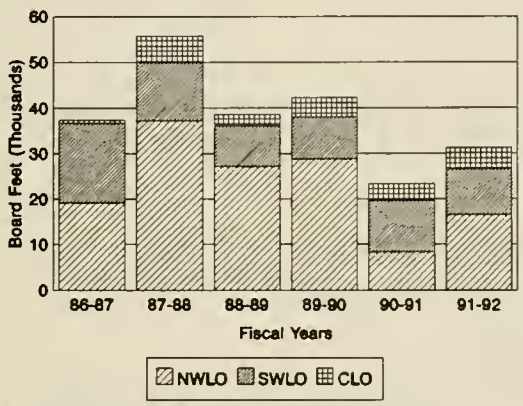
What Price and Amount of Timber are Necessary to Generate Sufficient Revenue?

Two major factors affect the amount of revenue generated for trust accounts: amount of timber harvested, and price of timber. Both factors cause fluctuations in overall revenue. For example, although relatively more timber was harvested in fiscal year 1987-88, the price of timber was lower so the amount of money transferred to the trust accounts was not significantly higher than the year before or the year after. In the six years from fiscal year 1986-87 to 1991-92, the most revenue was generated in fiscal year 1989-90 although the amount of timber harvested

was not significantly larger than the previous year's harvest. The price of timber was higher in fiscal year 1989-90 than in the previous year or the next year.

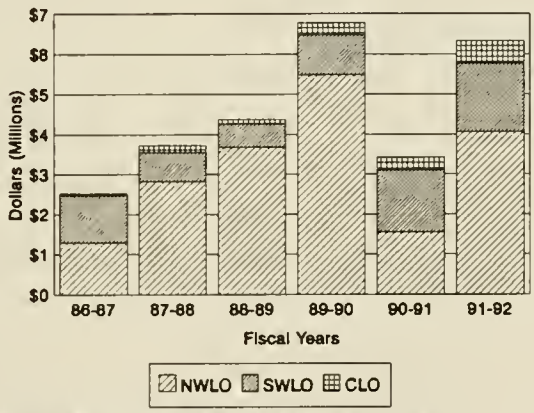
The following charts show the board feet harvested and the amount transferred to the trust from timber sales by land office from fiscal year 1986-87 through fiscal year 1991-92.

Figure 7
Amount of Board Feet Harvested
(Fiscal Years 1986-87 through 1991-92)



Source: Compiled by the Office of the Legislative Auditor from Department of State Lands' records

Figure 8
Amount Transferred to Trust Accounts
(Fiscal Years 1986-87 through 1991-92)



Source: Compiled by the Office of the Legislative Auditor from Department of State Lands' records

At the time of our audit, DSL officials were discussing the minimum rate of return they want to generate from the sale of forest products from trust land. If the volume harvested and price of timber does not create that rate of return, then DSL officials indicated they will have to find other methods to generate revenue such as recreational use or commercial development.

As part of the audit we determined the rate of return which would be realized with a minimum and maximum price of timber at various harvest levels. To determine a minimum price we took the weighted average of the amount bid for timber sold in

fiscal year 1988-89 for a sample of timber sales. Given current market conditions, and harvest levels on federal land, we do not believe the price will fall below $120 per thousand board feet in the near future. This is the amount that would be deposited in the trust accounts. We determined the maximum price by taking the weighted average of prices bid for a sample of DSL timber sales in fiscal year 1989-90. Our calculations resulted in a price of approximately $175 per thousand board feet.

Bids accepted for timber sold in August 1992 indicate our assumptions are realistic. Bid amounts from five sales averaged $264 per thousand board feet. The lowest bid accepted was $204.58 per thousand board feet, and the highest was $328.08 per thousand board feet.

The following chart shows the rate of return which could be realized to the trust funds using different harvest levels estimated by the department.

Table 8
Rate of Return on General Fund Money From Timber Sales

Annual Harvest (1000 Board Feet)	Timber Price (1000 Board Feet)	Revenue Generated	General Fund Expenditures	Rate of Return
25,000	$120	$3,000,000	$1,550,000	$1.94
25,000	$175	$4,375,000	$1,550,000	$2.82
27,000	$120	$3,240,000	$1,550,000	$2.09
27,000	$175	$4,725,000	$1,550,000	$3.05

Source: Compiled by the Office of the Legislative Auditor

As highlighted above, we estimate the minimum rate of return the department would realize would be $1.94 for every dollar of General Fund money spent. This would be realized if 25 million board feet were cut and the price of timber was $120 per thousand board feet. The greatest rate of return would be $3.05 for every dollar spent.

We also calculated the minimum price of timber necessary for DSL to obtain a rate of return approximately the same as the

state's average Treasurer's Fund rate for fiscal years 1986-87 through 1991-92 (8 percent). We used the same expenditures and amount harvested as in the above chart. We found the department would have to receive a minimum of $62 per thousand board feet while still obtaining a minimum rate of return of 8 percent. The following table shows our results.

Table 9
Average Price of Timber Required

General Fund Expenditures	Revenue Generated	Rate of Return	Annual Harvest (1000 Board Feet)	Timber Price (1000 Board Feet)
$1,550,000	$1,674,000	$1.08	25,000	$67
$1,550,000	$1,674,000	$1.08	27,000	$62

Source: Compiled by the Office of the Legislative Auditor

The last calculation we did was to determine the amount of timber necessary to harvest to generate the rate of return the state earns on the Treasurer's Fund. We found the state could harvest a minimum of 9.6 million board feet with a timber price of $175 per thousand board feet. A minimum of 14 million board feet per year would be necessary if the price dropped to $120 per thousand. The following table shows our calculations.

Table 10
Minimum Rate of Harvest Required

Timber Price (1000 Board Feet)	General Fund Expenditures	Rate of Return	Revenue Generated	Rate of Harvest (1000 Board Feet)
$120	$1,550,000	1.08	$1,674,000	13,950
$175	$1,550,000	1.08	$1,674,000	9,566

Source: Compiled by the Office of the Legislative Auditor

As can be seen in the above charts, the price of timber would have to drop dramatically before timber sales would cease to generate enough revenue to cover costs. Also, the amount

harvested each year could decrease significantly before harvesting timber would not be profitable.

How Does Staffing Affect Revenue?

Another area which affects revenue returned to the trust from the sale of forest products is the staffing of the Forest Management Program. As evidenced in fiscal year 1985-86, an increase in staff increased the amount of timber sold. The department estimates it could harvest 30 to 35 million board feet a year for the next biennium with an increase in seven FTE.

We calculated the amount of money which would be deposited in the trust funds, and the rate of return from the use of General Fund monies at the increased harvest level. Using department assumptions, the following chart shows $3.6 to $6.1 million could be generated with an increase of seven staff.

Table 11
Rate of Return on General Fund Money from Timber Sales

Annual Harvest (1000 Board Feet)	Timber Price (1000 Board Feet)	Revenue Generated	General Fund Expenditures	Rate of Return
30,000	$120	$3,600,000	$1,920,000	$1.88
30,000	$175	$5,250,000	$1,920,000	$2.73
35,000	$120	$4,200,000	$1,920,000	$2.19
35,000	$175	$6,125,000	$1,920,000	$3.19

Source: Compiled by the Office of the Legislative Auditor

What Affects Sales of Forest Products?

The following sections discuss events which cause harvest levels to be less than biological sustained yield. The standard definition of biological sustained yield is that the quantity of timber harvested during a period of time is equal to the amount of timber growing on the land in that same time period. (In Montana the time period averages 90 years.) This principle allows a continual harvesting of timber. This definition is considered the biological sustained yield and takes into consideration only the

timber growing on the land. Such items as wildlife and watershed impacts from harvesting the timber are not considered.

Our audit showed a number of items affect sales of forest products from trust land. These include cumulative effects on water quality and wildlife habitat, state and federal environmental laws, and access to trust land. Due to field personnel learning how to evaluate and implement department standards and guidelines for the first two items, it is taking longer to complete the process to sell forest products. Adjacent landowners, particularly east of the Continental Divide, sometimes restrict access to trust land so field personnel cannot conduct sales on that land. The following sections discuss cumulative effects, environmental requirements, and access problems.

What are Cumulative Effects and How Do They Affect Forest Products Sales?

The Montana Environmental Policy Act requires DSL to consider cumulative effects of the human environment when conducting timber sales. Cumulative effects are defined as the collective impacts on the human environment of a proposed activity when considered with other activity in the area (past or present).

Cumulative effects on water quality and wildlife habitat are one of the primary items which limit the amount of forest products which can be sold in a given area. If the area around trust timber to be sold has already been harvested by another party, this has a bearing on how much, if any, timber DSL can harvest from trust land. In some cases the harvest has to be delayed for a number of years; in other cases the amount of timber which can be harvested is restricted.

Cumulative Effects on Water Quality: If DSL wants to harvest timber in a drainage where adjacent landowners have harvested their timber in previous years, the state may be limited in its harvesting ability to ensure water quality of the stream or creek remains within state constraints. Water quality standards are established by the Department of Health and Environmental Sciences in compliance with the Montana Water Pollution Control Act. From the mid-1980s through November 1991, 24 timber sales on trust land were modified or delayed due to cumulative effects on water. For example, in 1989 one timber sale on

trust land was delayed a minimum of ten years due to proposed harvesting by other landowners in the area. A number of other sales on the list have been sold, but the original proposal for harvesting was modified.

Cumulative Effects on Wildlife Habitat: Timber sales have also been modified due to cumulative effects on wildlife habitat. In one area, another landowner harvested timber affecting elk habitat. When DSL planned to conduct a timber sale in the same area, outside groups, including the Department of Fish, Wildlife, and Parks, asked DSL to not log in that area since the amount of elk winter habitat was already depleted. The issue was not resolved at the time of our audit.

DSL personnel also must consider cumulative effects on grizzly bears. When compiling timber sales in the Northwest Land Office, staff must determine if they are in a Grizzly Bear Management Area (BMA) as established by the federal government. If personnel plan to cut in a BMA they must determine what harvesting occurred on land which borders the area they plan to harvest. Staff must ensure adequate security cover remains in the area cut, road density does not exceed acceptable limits (one mile of open road per square mile of land in a BMA), and there is adequate security cover on the land surrounding the area to be harvested. This allows bears to move to those areas when logging starts. If there is not enough cover DSL has to delay or cancel harvesting in that area until the other areas have revegetated.

How Do State and Federal Laws Affect Timber Sales?

DSL has to ensure sales comply with such state laws as water quality, streamside management zones, air quality, the Montana Environmental Policy Act (MEPA), and the Montana Antiquities Act. Federal laws include the Threatened and Endangered Species Act for grizzly bears, wolves, bald eagles, etc. Ensuring they are in complete compliance with these laws has required extra time in compiling a timber sale package.

To help ensure compliance with some of the laws, Forestry and Field Operations Divisions personnel wrote and implemented standards and guidelines for staff to follow when compiling a

sale. There are standards and guidelines for grizzly bear habitat, white-tailed deer winter range habitat, and elk winter habitat. An example of a guideline for grizzly bears pertains to cover. When designing an area to harvest, staff must ensure proper cover is maintained. The standards and guidelines state:

> "The minimum width of a patch of hiding cover should be three sight distances or 600 feet, whichever is greater. A sight distance is the average distance of vegetative cover and topography needed to hide a grizzly bear from the view of an observer. Maintain cover that is well distributed throughout each biological unit. A suggested amount of cover is 40 percent of the total land area. The distance to cover from any point within a harvest unit should be no more than 600 feet."

Field personnel find implementing the standards and guidelines causes them to take more time to complete a sale package since all the requirements must be considered.

DSL personnel are also required to comply with Best Management Practices (BMPs). Although this state law is voluntary, department employees believe they should follow the standards for BMPs, thus setting an example for other people selling forest products. Standards for road building, timber harvesting, and streamside management zones (a zone along a stream, lake, reservoir, or spring that remains green long into the summer because of its spongy, water-holding soil and dense vegetation) are included in BMPs.

How Does Access to Trust Land Affect Timber Sales?

Due to the scattered nature of trust land, DSL often must cross other government or private property to access an area to harvest. Use of existing roads are the most cost effective means of accessing trust land. Normally there is a cost to use the road. The cost is commonly based upon the number of board feet which is harvested from the area.

As discussed in Chapter II, one of the first items DSL staff investigate when compiling a timber sale is whether DSL and the eventual contractor can access the trust land. Access can be granted by a permanent easement, a temporary right-of-way, or entering into a cost share agreement with other landowners. The

cost of the use of the road is paid via the timber sale. The contractor will reduce the bid price of the timber to cover the cost of obtaining the right-of-way.

For most sales a temporary right-of-way is granted. DSL personnel negotiate with the landowner, and the contractor who is awarded the sale pays for the right-of-way. The amount paid for the right-of-way depends entirely upon the landowner. Some people only request the contractor maintain the road and possibly install improvements, such as a gate. Other landowners charge fees. A review of timber sales showed charges for use of roads ranged from $0.25 per thousand board feet to $11.00 per thousand board feet harvested.

In some cases when access is denied an alternative route is used. On one sale, an extra hour was added to each round trip from the sale to the mill because DSL could not obtain access through private land. In another sale a private landowner claimed he owned the road. DSL's option was to use an already existing road, extend that road, and pay the owner $10 per thousand board feet. DSL employees also indicated sales have been postponed because they could not obtain access when they approached the landowner.

There is also some land DSL cannot access. For example, on an Indian Reservation there are three sections which only tribal members can access. DSL officials do not expect to harvest the trees on those lands. There is also trust land in a national recreation area. DSL will not be able to harvest the trees on that land due to the nature of the surrounding land.

Obtaining Access in the Future: Department personnel believe problems concerning access to trust land will increase in the future since more people have voiced their opposition to timber sales. Personnel are concerned permission to cross private property to access trust land on which they want to conduct a timber sale will be denied more often in the years ahead.

Obtaining permanent easements and rights-of-ways helps reduce access problems. Presently, permanent access can only be

purchased when there is a timber sale in an area since timber sales are the only means the department has for paying for access. Permanent access can also be obtained by condemnation. The Board of Land Commissioners (Land Board) and DSL officials have chosen not to use this method. This issue was discussed by the Land Board in 1979 when DSL sought access to some trust timber which was infested by insects. According to board minutes the method was rejected because the board believed court costs to enforce the procedure would not be justified. Also, they believed the timber would be dead by the time access was obtained. Based upon our review of meeting minutes, it appears condemnation has not been discussed by any other Land Board.

What is DSL Doing to Ensure a Resource in the Long-Term?

Forestry Division officials conduct a number of different activities to ensure a forest resource in the long-term. One such activity is harvesting a volume of timber which is close to or below biological sustained yield. The division also uses forest management practices such as clearing brush and debris left after a timber sale to reduce the fire hazard, and prepare the land for future timber crops. Trees are planted after some sales instead of waiting for natural regeneration, and also to ensure superior trees will grow in the area. Access to trust land in the future is ensured by entering into road cost share agreements with other landowners in the area. The following sections discuss in more detail these methods of ensuring forest resources are available in the future.

How Does Sustained Yield Ensure a Resource in the Long-Term?

By following the principle of sustained yield, DSL ensures it is not harvesting more trees over a period of time than will grow back in that same time period. This practice ensures the resource will be available for harvesting in the long-term. We talked to officials in the forest products industry and they indicated DSL is the only manager of forested land currently harvesting below and relatively close to sustained yield. Private industry companies have harvested above sustained yield on their land. Federal agencies harvest well below sustained yield on federal land.

In 1985 the legislature appropriated funding for 8 additional positions to allow DSL to harvest timber on trust land at a sustained yield of 50 million board feet per year. At that time, 50 million board feet per year was DSL's most accurate estimate of biological sustained yield on trust land. The estimate was based upon inventory information available at the time.

In fiscal year 1985-86, 27 timber sales sold approximately 49.6 million board feet, up from 21.8 million board feet sold in the previous year. Since that time the number of timber sales each year has decreased, as has the number of board feet sold. As stated earlier, this decrease is primarily attributed to efforts to minimize environmental impacts from sales of forest products.

As discussed earlier, department officials believe they can currently sell 25 to 27 million board feet a year in the next biennium without an increase in staff. With an increase of seven full time equivalents (FTE), they believe they can harvest 30 to 35 million board feet a year in the next biennium. These two estimates take into consideration the items which limit the number of timber sales (discussed in the previous sections), and the timber available for harvesting, and are both below biological sustained yield. The estimates are based upon the professional judgement of land office personal. We were not able to verify the accuracy of the numbers.

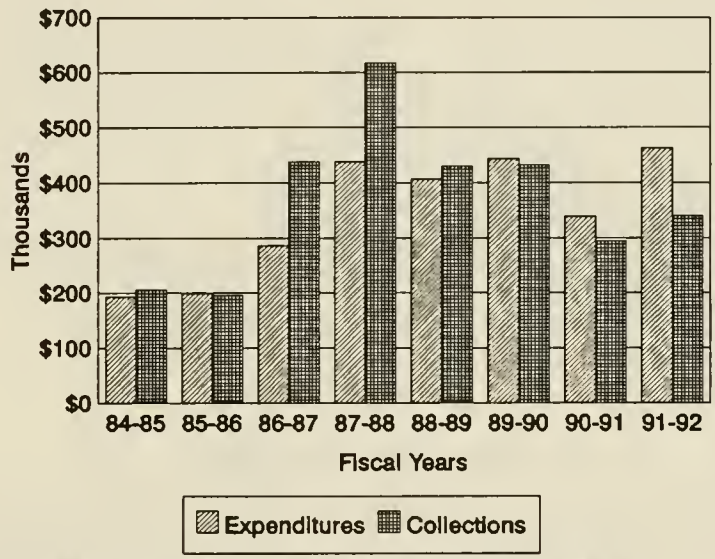
What is Brush Disposal and How Does it Ensure a Resource in the Long-Term?

Brush disposal projects accomplish reduction of fire hazard by cutting up (lopping) branches left from harvesting trees on trust land, mechanical piling, burning, and associated site preparation for reforestation. Work for reforestation (ensuring a new stand of trees in the future either through natural regeneration or planting seedlings) includes mechanical site preparation by a bulldozer during brush disposal operations. Disposal can be done by the sale contractor, DSL staff (usually summer FTE used to fight fires), or the work can be contracted.

Collections from timber sales finance brush disposal. A maximum of eleven dollars per thousand board feet of harvested timber is collected from the sale contractor for brush disposal.

The amount collected from each thousand board feet is based upon the amount of work DSL staff believe is needed in each area. Generally the maximum amount is collected. The following graph shows collections and expenditures for brush disposal for fiscal years 1984-85 through 1991-92.

Figure 9
Collections and Expenditures for Brush Projects
(Fiscal Years 1984-85 through 1991-92)



Source: Compiled by the Office of the Legislative Auditor from Statewide Budgeting and Accounting Records

Revenues and expenditures for each fiscal year do not match since revenue is collected when trees are harvested but brush disposal does not occur until an entire area is harvested. Thus, revenues collected in one year may not be spent until the next fiscal year.

Brush disposal helps ensure a resource in the long-term by reducing the fire hazard, thus reducing the likelihood of fire damaging or destroying trees on trust land. These trees can then be harvested in the future. Also, brush disposal aids site preparation for regeneration of trees, either through natural regeneration or from planting seedlings.

What is TSI and How Does It Ensure a Resource in the Long Term?

Timber stand improvement (TSI) consists of on-the-ground project work to improve the composition, constitution, or condition of a stand of trust land timber. This includes reforestation and site preparation, excluding work accomplished in brush disposal operations, after a timber sale. TSI includes activities such as planting, thinning, seed collection, seedling production, distribution of nursery stock for planting on forest trust land, and genetic tree improvement. Stand improvement accomplished by harvesting commercial products, such as posts and poles, is not included since DSL receives money from commercial thinning. The following chart shows the acres treated, and the trees planted, for eight fiscal years.

Table 12
TSI Project Accomplishments
(Fiscal Years 1984-85 through 1991-92)

Fiscal Year	Acres: Site Prep	Acres: Thinned	Acres: Planted	Trees Planted
91-92	4,179	241	1,062	367,435
90-91	3,103	1,141	1,086	354,322
89-90	3,188	924	1,357	524,384
88-89	985	421	1,267	450,520
87-88	2,262	1,190	1,190	318,827
86-87	N/A	N/A	N/A	N/A
85-86	1,404	646	606	221,760
84-85	1,278	1,050	543	181,995

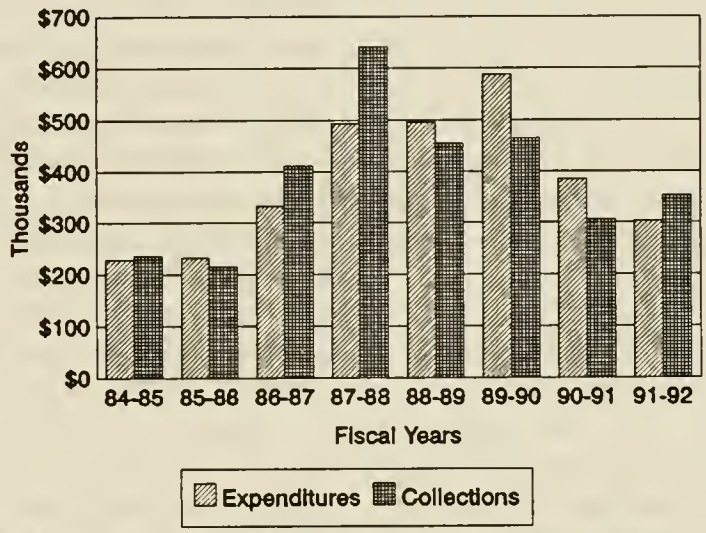
N/A - Information not available

Source: Compiled by the Office of the Legislative Auditor from Department of State Lands' records

Timber stand improvement is financed primarily from collections from timber sales. A maximum of $11 per thousand board feet of harvested timber can be collected from the sale contractor for timber stand improvement. (The amount was raised to $22 per thousand board feet in August 1992.) The amount collected is based upon the amount of work the contractor will complete under the terms of the sale contract, thus reducing the work done by DSL staff. For example, if DSL will need to do limited timber stand improvement because the contractor completed the majority of the work, the contractor is

charged less than the allowed $22 per thousand board feet. The following chart details collections for timber stand improvement and the expenditures for the program for fiscal years 1984-85 through 1991-92.

Figure 10
Collections and Expenditures for TSI*
(Fiscal Years 1984-85 through 1991-92)



*Includes expenditures made by the Nursery and Grounds Bureau for growing seedlings to be planted on trust land.
Source: Compiled by OLA from Statewide Budgeting & Accounting System records

TSI is conducted to ensure merchantable trees are available in the future for harvesting. DSL officials believe planting gives them better control over variation in cone crops, weather, small mammals, effectiveness of site preparation, and consequently a better likelihood of successful and timely reforestation. Planting is preferred where changing existing species composition is important for increased timber volume and value, or for improved resistance to insects, disease, and environmental stresses. DSL staff generally plant trees when they believe the added long-term return to the trust is worth the additional cost. Regular regeneration surveys are conducted in areas planted and where natural regeneration was planned to ensure DSL goals are

met. Financial analyses are conducted to ensure planting would be cost beneficial in the long-term.

During our audit we visited eight timber sales to observe the regeneration of the sites. We found trees were growing in those sites that were harvested in the 1980s. Some areas had been planted and some left for natural regeneration. One of the areas planned for natural regeneration was planted with nursery trees seven years after harvesting since there were few natural seedlings. Department officials indicated natural regeneration in that area was hampered due to poor seed crops and insects. Other areas had been planted with nursery trees but natural regeneration was doing a better job of restocking the area. Our observations indicate DSL conducts TSI and is still in the learning phases. Information is gathered from every timber sale concerning the best method to regenerate an area. It will take a number of years before results will be quantified since it takes an average of 90 years to grow a tree to merchantable size in Montana.

How Does Genetic Tree Improvement Ensure a Resource in the Long-Term?

Genetic tree improvement of conifers used for reforestation is accomplished through Forestry Division involvement in the Inland Empire Tree Improvement Cooperative (IETIC). DSL's cost for this program is funded with TSI money. This cooperative consists of 17 organizations in the Western United States. DSL became a member in 1969 with approval of the state Board of Forestry.

The objectives of the cooperative are to identify and use seed which produces genetically superior conifers. Seeds are collected from trees which appear to be genetically superior. Seedlings from these seeds are then planted in progeny test plantations. The trees are periodically measured to determine if there is any genetic superiority. Seeds from parent trees of progeny which appear superior are then collected and used to start seedlings to be used for reforestation projects or seed orchards on DSL and other members' land. DSL has progeny plantations for ponderosa pine, western larch, and Douglas fir.

By planting genetically superior trees, DSL anticipates the trees will grow faster, and larger, thus allowing harvesting at an earlier date than would otherwise be possible. To date there has been little data gathered since it takes an average of 90 years to grow a tree to merchantable size in Montana.

What are Cost Share Agreements and How Do They Help Ensure Access to Trust Land?

Cost share is a method in which the costs of building a new road or apportioning costs of an existing road, which is used by two or more parties, are shared by the parties. The cost share principle is implemented by formation of cost share agreement areas. The area is usually a drainage in which all the parties will conduct land management practices, such as harvesting forest products through timber sales. The agreement contains the "rules" for cost sharing within the boundaries of the agreement area.

Commitments for specific roads in an agreement area are made by writing supplements to the agreement. Supplements are documents which legally bind the parties in the agreement to share the cost of an existing road or the costs to build a new road.

At the time of our audit, the Department of State Lands was a party in six cost share agreements with the United State Forest Service (USFS), and one agreement with a private timber company. There are ten supplements under the agreements with the USFS. There are eight supplements under the agreement with the company. DSL shares 42.74 miles of road with the USFS, and 63.3 miles of road with the company.

The cost of the road to each party is based on the amount of land or volume of timber each party is able to access from the road. For example, DSL plans to harvest in an area where they need to use a road DSL and another party built a number of years ago. Personnel from DSL and the other party will examine the existing road. Records are searched to determine how much each entity spent to build the road. Once costs are determined, the parties determine how much of their own land or timber is accessed, as a percentage of all the land or timber accessed by the road. If they determine 90 percent of the land or timber

accessed belongs to the other party, the cost of the road will be apportioned 90 percent to the other party and 10 percent to DSL.

The apportioned costs in supplements are maintained as balances in a ledger. No money normally exchanges hands. As of September 1991, DSL showed a positive balance when calculating the cost of road construction with the two other parties. One party owes DSL $7,625 for the cost shared roads. Supplements with the other party show that party owes DSL $164,933 for cost shared roads. If the shares were ever cashed out, the proceeds would be distributed to the appropriate trust accounts.

By entering into the agreements, DSL is assured of access to the trust land included in the agreement. This will allow DSL to enter into the area and harvest the timber in the future.

Are There Other Methods to Generate Revenue for the Trust?

There are methods to generate revenue to the trust funds other than selling forest products but DSL was not actively pursuing other uses at the time of our audit. Some money is collected for leases of cabin sites, grazing and agricultural licenses, easements, and leases or licenses for special uses but it is minimal and DSL is not pursuing issuance of new leases or licenses. In fiscal year 1990-91, DSL collected approximately $295,000 from leases and licenses on forested trust land. The following sections discuss how DSL is contemplating obtaining money from forested trust land by means other than sale of forest products.

Income from Special Uses

DSL issues licenses for special uses on forested trust land. Special uses include snowmobile trails, photographing domesticated wild animals in a natural setting, horse riding events, trails for commercial sled dog rides, etc. The amount charged varies with the use. Land offices issue licenses for special uses. DSL does not actively seek special uses of forested trust land.

One way Forestry Division wants to seek more special use of trust land is through a programmatic plan which assists staff in land and unit offices to determine the best use of forested trust

land. The plan will include policies for deciding which of many possible uses of forest land should be used to generate revenue for the trust accounts. Field staff would go through a process whereby they would determine if the proposed activity is the best for land management and generates income to the trust.

Income From Managing Land for Wildlife Habitat

Forestry Division personnel believe a programmatic plan review of some parcels possibly will indicate management of trust land for wildlife habitat might result in more income to the trust than selling the timber on the parcel. Outfitters are very interested in obtaining use permits to guide people on hunting trips on forested trust land. If staff find through the programmatic planning process there is substantial amounts of wildlife in an area, an interested outfitter will be issued a lease allowing him/her to guide people into the area. DSL has already noted that since passage of legislation in 1991 allowing recreational access to trust land, more outfitters have requested, and received, use permits.

DSL officials also indicated they have discussed billing the Department of Fish, Wildlife, and Parks (DFWP) if that department does not want DSL to harvest timber because of wildlife concerns in a particular area. For example, DFWP, and other outside organizations, do not want DSL to harvest in a particular area because of cumulative effects on elk winter habitat. DSL's preliminary figures estimate the state could lose $5,000 a year for ten years if DSL is not able to harvest the area. There is some timber dying in the area and if not harvested, DSL personnel believe they will lose that timber. One of the options being considered is asking DFWP to pay the amount which would be deposited in trust accounts if the timber were harvested.

Is the Forestry Division Conducting Land Exchanges?

Maintaining an active land exchange program is the objective of one of the functions Forestry Division administers. Our audit work indicated the Forestry Division has an established land exchange process, and does enter into exchanges, but staff do not actively solicit land exchanges with other landowners. If some-

one is interested in exchanging their land with DSL, the person must go to DSL.

In 1991 staff did not encourage new exchanges until some of the existing exchanges were finalized. As of April 1992, there were five exchanges involving 20,117 acres of forested trust land being negotiated or processed. Two of the exchanges started in 1987, two started in 1989, and one in 1990.

The following sections discuss in more detail DSL's policy on land exchanges.

Why Does DSL Enter Into Land Exchanges?

DSL enters into land exchanges of forested trust land for a number of reasons including consolidation of blocks of trust land, rectifying small boundary problems, and gaining access to trust land. DSL tries to exchange the smaller, isolated sections of trust land which cannot be easily managed.

Department officials indicated there are advantages and disadvantages concerning exchanging land to consolidate blocks of trust land. Advantages include obtaining access to trust land, control over cumulative effects, and managing the land instead of responding to problems. DSL employees indicated obtaining blocks of ownership heightens awareness of any management of the land. This interest increases time spent by field personnel in answering questions and concerns pertaining to particular sales.

Why Does DSL Not Actively Seek Land Exchanges?

DSL does not actively seek land exchanges because exchanges can take three or four years to complete. The time required to complete land exchanges is often outside the department's control. Once DSL has identified parcels it wants to exchange, the other entity has to provide a list of land it wants to trade. This initial determination of parcels to exchange usually takes the longest time since both parties need to determine what benefits the other party is seeking in the exchange of the land. Both parties must then appraise the other entity's land. Proposals are made by both parties as to which land they want. Negotiations then start. Since the people involved in exchanges are also doing

other work, it can take quite a while to get land appraised, proposals written, responses generated, and negotiations started.

The process also might be slowed because other groups may oppose the land exchanges. Negotiations must include members of those groups.

A second reason exchanges are not actively pursued is that by the time the exchange is complete, the original reason for the exchange may no longer be valid. This could be due to the other party changing its reasons for the exchange, or changes in the environment around the land to be exchanged, such as a sale of the surrounding land to another party, or the harvesting of timber from the surrounding land.

Does DSL Manage Roads Built on Trust Land?

After roads are built into an area with a timber sale, DSL must manage the road in some way. This may include maintaining the road for public use with motorized vehicles, or closing the road to motorized vehicles. In the Swan and Stillwater State Forests some roads must be closed to comply with federal laws pertaining to grizzly bears. We found DSL funding limits management of roads. The following sections discuss what DSL is doing in these areas.

Does DSL Maintain Roads Built on Trust Land?

DSL currently does not actively maintain roads built on trust land since the only funding for maintenance is what is obtained during timber sales. If a sale does not occur in an area for a number of years, the roads in that area can be obliterated by non-use or lack of maintenance. If money from sales in other areas were used to maintain roads, the amount of money deposited in the trust for that land would be reduced. If operating expenses are used to finance road maintenance, this decreases the amount of money available for other activities in the unit office area.

Lack of road maintenance could prove to be costly to the state for a couple of reasons. First, the road will have to be rebuilt when DSL needs to reenter the area. Field staff need to reenter

harvested areas at least every five years to complete regeneration surveys. Also, lack of a maintained road could slow down initial attack of a fire in the area, possibly causing the fire to become larger and more expensive.

The following sections discuss what maintenance is conducted on trust land.

How is Road Maintenance Currently Conducted?

Road maintenance consists of maintaining road beds and drain structures/features to prevent erosion, providing safe travel for the public and DSL employees, closing roads from public access, etc. The majority of maintenance is conducted in the Northwest Land Office since the Swan and Stillwater State Forests are used extensively by the public. Since the two state forests are surrounded by federal land, many people consider the trust land part of the national forests and open for public use. Thus, there is a need to maintain the roads in these state forests.

Maintenance currently results from timber sales. Either DSL will receive money and maintain the road itself, or the contractor will maintain the road. If a condition of the sale is to maintain the road, the contractor reduces the price he/she pays for the timber harvested to offset maintenance costs.

Extra gates and culverts are also obtained through timber sales. These items are stockpiled and used in the future when a road needs to be closed or a culvert requires replacement, and a timber sale is not planned in that area. Gates and culverts will either be installed by DSL employees or the work will be contracted.

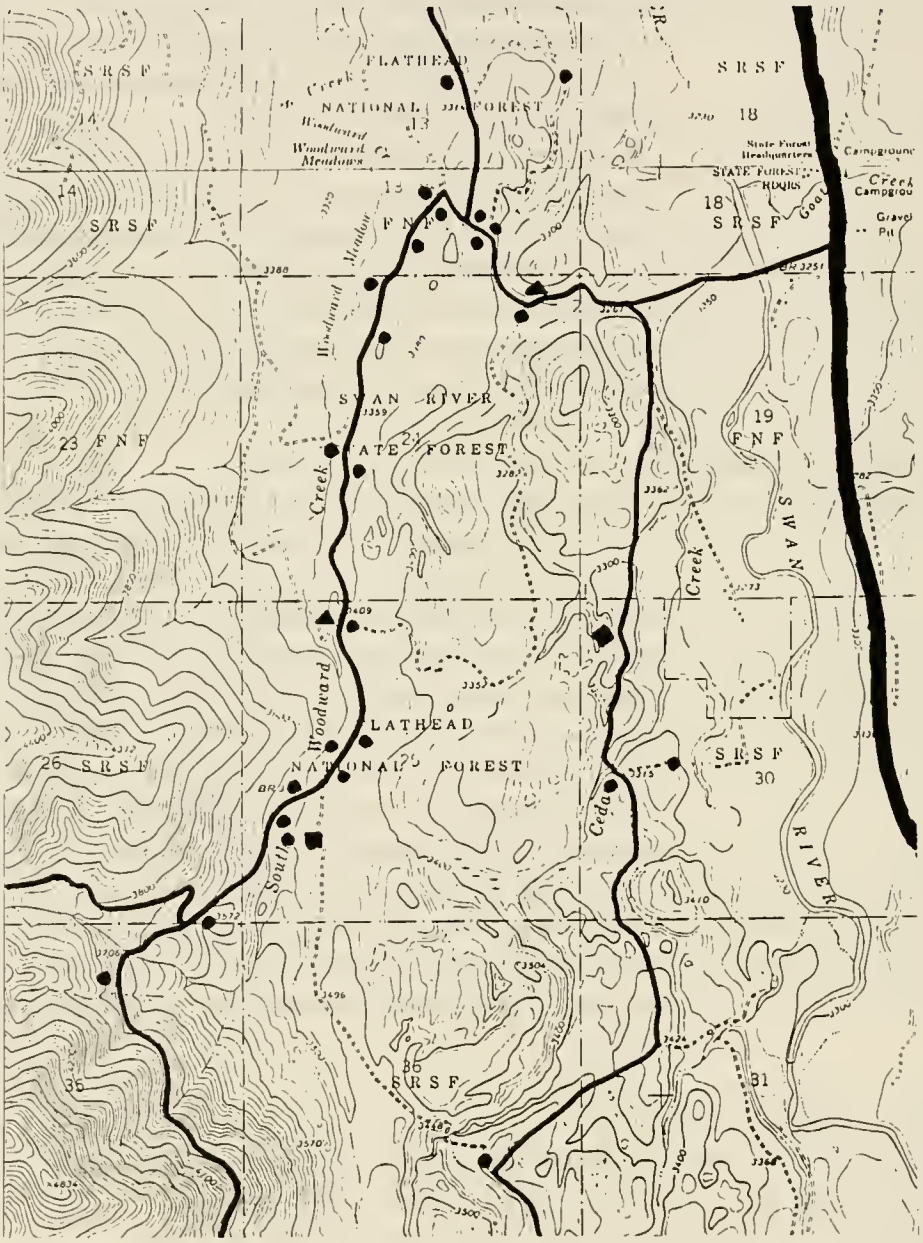
The Swan Unit accomplishes most of the needed road maintenance in that unit office area through use of inmates from the Swan River Forest Camp, Department of Corrections and Human Services, who are in the Institutional Forestry Work Program. Inmates do such things as clearing roads of brush and rocks. From fiscal year 1984-85 through 1991-92, approximately 1,700 man-hours a year were spent by inmates maintaining roads in the Swan River State Forest.

The Stillwater State Forest has approximately 30 bridges to be maintained. Some of these bridges are in need of repair. For example, DSL estimated it will cost $240,000 to replace one bridge, and $50,000 to replace another bridge. In 1977 the Northwest Land Office received Resource Development funds to replace a wooden bridge with a concrete bridge. The wooden bridge was weakened by a flood. At the time, the land office did not have other resources for financing the bridge construction. Resource Development funds are derived from income which is secured from trust land, and can only be expended on projects which develop or conserve various trust land resources including grazing, agricultural, and timber land, and water resources (section 77-1-Part 6, MCA).

Why Must Roads be Closed?

Besides regular maintenance, DSL also has to close roads in the Swan and Stillwater State Forests to comply with federal statutes. Regulations pertaining to grizzly bears allow only one mile of road be open to public use with motorized vehicles per square mile in a Bear Management Area. We estimated approximately 149 miles of road will have to be closed in specific portions of the Stillwater State Forest to comply with the federal regulation. Our calculations indicate it will cost DSL a total of approximately $65,000 in fiscal years 1990-91 and 1991-92 to close roads in the Stillwater State Forest. Costs include expenditures for gates, wooden or metal barriers, or earthen barricades, plus labor. DSL estimates it will cost $10,500 a year to maintain the closures. The map on the following page illustrates the different types and number of closures in one area in the Swan River State Forest.

Figure 11
Example of Road Closures in Swan River State Forest



Legend:
- Open Roads
- Kelly Humps
- Gates
- Logs or guard rail barricades
- Highway 83

Source: Department of State Lands

Conclusion

The overall purpose of the Forest Management Program is to manage classified forest trust land to provide income to the various trusts. We found during our program audit the Forestry and Field Operations Divisions have been meeting this purpose and it appears they will continue to do so in the future.

Currently, the program is returning $3.22 to trust accounts for every dollar of General Fund money spent on the program, while still addressing environmental issues such as water quality, wildlife habitat, etc. The program has standards and guidelines in place to address factors involved in management of forested trust land.

It appears current staffing and resources within the division will continue to maintain the timber resource and provide long-term income to school trust accounts. However, there is potential for increased revenue. If the division's estimate of sustained yield is relatively accurate, and timber prices and harvest amounts do not drop radically, an increase in staff could generate revenue to the trust accounts at the rate of $3 for every $1 of General Fund spent.

Since the overall purpose of the program is to maximize income to the trust accounts we believe the department should do the following items:

-- complete its detailed inventory of trees on forested trust land which will help them better define biological sustained yield;

-- develop a longer range plan which estimates sustained yield for more than two years and takes into consideration access constraints and environmental and legal requirements, all of which affect the amount of timber which can be harvested over the long-term;

-- if it appears DSL can harvest more timber, request additional resources. The result would be increased money to the trust, and a harvest level which is not above biological sustained yield; and

-- continue to evaluate and implement other methods of deriving revenue from forested trust land.

Recommendation #1

We recommend the Department of State Lands:

A. Complete its detailed inventory of trees on forested trust land which will help them better define biological sustained yield;

B. Develop a longer range plan which estimates sustained yield for more than two years and takes into consideration access constraints and environmental and legal requirement, all of which affect the amount of timber which can be harvested over the long-term;

C. If it appears DSL can harvest more timber, request additional resources. The result would be increased money to the trust, and a harvest level which is not above biological sustained yield; and

D. Continue to evaluate and implement other methods of deriving revenue from forested trust land.

Chapter IV
Service Forestry Program

Introduction

The Service Forestry function supports the forestry interests of Montana's private forest landowners, its forest products industry, its state and local governments, and other functions of the Forestry Division, Department of State Lands (DSL). Service forestry helps clients comply with state forestry laws and achieve their own forestry-related objectives.

Private forestry assistance became a permanent function of the State Forester in 1955. In the Board of Land Commissioners' meeting minutes of April 26, 1955, the board passed a motion authorizing the State Forester to employ a forester under the conditions of the Cooperative Forest Management (CFM) Act. The CFM Act provided 50 percent federal matching funds to allow states to assist private landowners with forestry problems on small forest land holdings. In 1965 the state Board of Forestry was informed the National Association of State Foresters passed a resolution stating the association endorsed the ten-year plan of the United States Department of Agriculture which subscribed to the principle that services to landowners and wood-using industries be directed through the respective state forest agencies. Since that time the Montana program has grown to include providing information and education on Best Management Practices, community forestry, and stewardship.

We reviewed aspects of the Service Forestry function relating to private forestry assistance. We chose to review the Private Forestry Assistance Program because of the potential for the consolidation of this program with Extension Forestry Program administered by the Cooperative Extension Service. We also had some questions concerning the need and funding of the program. The following sections discuss the Private Forestry Assistance Program.

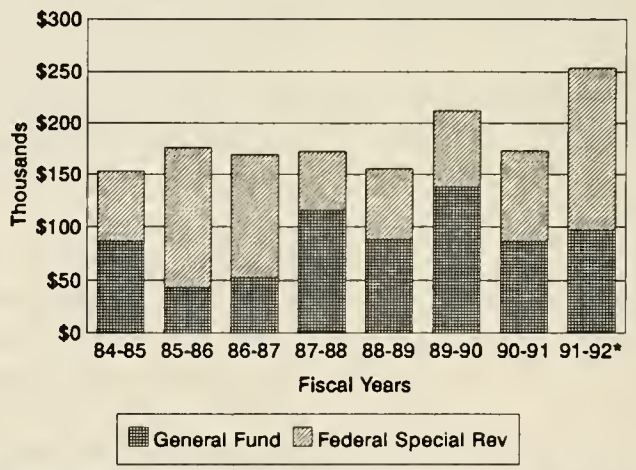
Program FTE and Expenditures

In fiscal year 1991-92, the Service Forestry Bureau and the six land offices were budgeted 5.5 Full-Time Equivalents (FTE) to provide private forestry assistance services. Approximately 20 people comprise the 5.5 FTE. These people also work in other programs administered by Forestry Division, such as fire suppression, forest management on school trust land, and other service forestry programs such as timber slash and forest practices.

Private Forestry Assistance Expenditures

Funding for the Private Forestry Assistance Program is provided through General and Federal Special Revenue Funds. The following chart shows expenditures, by funding source, for fiscal years 1984-85 through 1991-92.

Figure 12
Expenditures for Private Forestry Assistance
(Fiscal Years 1984-85 through 1991-92)



*Does not include $159,584 Fed. Special Rev. granted to CES for Stewardship Prg.
Source: Compiled by the Office of the Legislative Auditor from Statewide Budgeting and Accounting System records

In the eight fiscal years depicted, funding was approximately 48 percent from the General Fund and 52 percent from Federal Special Revenue. There was approximately $53,000 more Federal Special Revenue moneys spent than General Fund moneys.

What Services are Provided by the Program?

The Private Forestry Assistance (PFA) Program comprises all activities performed in response to service requests from private owners of nonindustrial forest land. Service foresters can assist a landowner a maximum of five man-days each year. Assistance provided to private landowners includes:

Forest Management Plans - preparation of written evaluations and recommendations covering one or several activities, such as harvesting, thinning, planting seedlings, etc., on forested land.

Timber Sale Assistance - limited on-the-ground assistance in the layout of sale areas and preparation of timber for sale, including advice on sale contracts and marking of trees.

Reforestation Assistance - technical assistance concerning site preparation or selection of harvesting practices which favor natural regeneration, and assistance in planting or replanting seedlings.

Timber Stand Improvement Assistance - technical assistance in noncommercial thinning of trees, weeding, pruning, fertilization, prescribed burning to control brush, and pest and animal control measures to protect the timber stand.

Pest Management Assistance - technical assistance to forest landowners in prevention or suppression of forest insect and disease pests.

Urban and Community Forestry - technical assistance with street tree inventories, identifying the need for insect and disease assistance, promoting urban wildlife, drafting tree or landscape ordinances, and preparing detailed site development and maintenance plans for urban lands.

Foresters do not provide landowners with any detailed ground work, such as cruising and marking the timber, contracting for a logger, or administering the sale. The following chart shows the primary types of assistance given, and the number and types of assists by land office for fiscal year 1991-92.

Table 13
Number and Types of Private Forestry Assistance Provided
(Fiscal Year 1991-92)

Type of Assistance	Number of Assists by Land Office						
	CE	EA	NE	NW	SO	SW	Total
Forest Management Plans			5	12		5	22
Timber Stand Improvement			4	10		11	25
Natural Regeneration				5		2	7
Tree Planting	3			13		15	31
Wildlife Habitat Improvement	1		2	3			6
Forage Production Improvement			2				2
Watershed Improvement			3	2			5
Timber Sales Asst.	6		22	69	8	42	147
Referred to Consultant	1		1	22		3	27
Forestry Landowners Assistance	27		11	53	4	32	127
Forest Pest Assistance		1	3	43	1	9	57
Information & Education	8	5	16	15		27	71
Urban and Community Forestry	1		18	2		11	32
Other Assistance	48	13	25	215	8	106	415
TOTAL	95	19	112	464	21	263	974

CE - Central Land Office
EA - Eastern Land Office
NE - Northeast Land Office
NW - Northwest Land Office
SO - Southern Land Office
SW - Southwest Land Office

Source: Compiled by the Office of the Legislative Auditor from Department of State Lands' records

As indicated above, the Northwest (Kalispell) and Southwest (Missoula) Land Offices had the majority of the assists since there is relatively high forest productivity in those areas, easy access to mills resulting in more nonindustrial private forest timber sales, and smaller average acreage per private owner (smaller owners tend to call DSL for help). An average of 684 landowners received assistance for each of the six fiscal years from 1985-86 through 1990-91.

What Entity Should Provide the Services?

We reviewed the possibility of the Private Forestry Assistance Program being administered by the Extension Forestry Program of the Montana State University Cooperative Extension Service (CES). The objective of the Extension Forester is primarily to educate nonindustrial landowners in the state concerning forestry. This is mainly accomplished by conducting classes and/or workshops in different parts of the state.

Our review indicated there would be more disadvantages than advantages to such a transfer. There are only two extension foresters so everyday contact would be done by county extension agents who are not trained foresters. The 5.5 FTE is really the service of 20 people who are foresters. With a transfer of the function, 5 people would then have to respond to questions now being answered by 20 people throughout the state. Also, many of the functions performed by service foresters are the same types of functions they execute in management of trust land. A consolidation of functions would create more problems for landowners seeking assistance for timber sales since landowners would have to go to one agency for assistance and to another for the proper permits for slash reduction.

Based upon information gathered concerning the two programs we determined it would not be beneficial, or efficient, to consolidate the programs but rather have them continue as they currently function. We believe there is a need for both programs since they provide different types of educational services. Extension Forestry tends to provide information via workshops and classes, whereas PFA provides information through one-on-one contact. We found personnel in the two programs coordinate with each other to provide educational material and classes to private landowners on such things as Best Management Practices and stewardship of the land.

Questionnaire Results Indicated Experience with Program Satisfactory

To help us evaluate the Private Forestry Assistance Program, we sent a questionnaire to a sample of people who requested assistance in 1990 or 1991. Of the 136 responses (of 187 questionnaires mailed), we found 133 people received information which was useful for the results they wanted. One hundred twenty-eight (94 percent) indicated they would use the services provided by the program again. In rating the program, 81 (60 percent) said their experience with the program was highly satisfactory and 51 (37 percent) said it was satisfactory. One hundred thirty-four (134) people said a department representative responded to their request for assistance in a timely manner. (For a compilation of the results of the questionnaire see Appendix A.)

Program Need and Funding

During our audit we developed questions concerning the funding and need for the Private Forestry Assistance Program. We found the program is funded partially by General Fund money but only 600 to 700 people in the state use the service. Also, there are private consultant foresters who provide essentially the same type of service. Our concerns and recommendations are discussed in the following sections.

How Should the Program be Funded?

As shown in figure 12, the program is funded approximately 50 percent by the General Fund. Even though participants are satisfied with the program, few people personally benefit from the program. Since there are no fees charged for assistance provided, landowners who receive the services are not directly paying for the program. Landowners who receive assistance are indirectly paying for the services through the taxes they pay, as are the other citizens of Montana. From fiscal year 1985-86 through 1990-91, approximately 4,100 landowners utilized the services at a cost of $522,000. This equates to expenditures from the General Fund of $127 for every landowner served.

Since few people use the service and the per landowner cost is relatively low, one option for funding the General Fund portion of the Private Forestry Assistance Program is to charge a nominal fee for services provided. Private forestry assistance does provide an indirect benefit to the citizens of Montana, thus possibly justifying the use of General Fund money. Through this program there is better stewardship of private nonindustrial land, i.e., timber sales are conducted so as to maintain water quality, there is erosion control, wildlife habitat is maintained, etc.

Does Anyone Else Provide the Service?

Section 76-13-104(1), MCA, states DSL ". . . may give technical and practical advice concerning forest, range, water, and soil conservation. . . ." The department has decided to provide this service and accomplishes this through the Private Forestry Assistance Program. During our audit we also found consultant foresters provide essentially this same kind of advice although

there are some differences. Consultant foresters generally provide more in-depth services than those provided by DSL's service foresters. Whereas DSL's foresters can spend a maximum of five man-days assisting one landowner, consultant foresters have no time limit. If requested, consultant foresters will oversee the entire process for a timber sale. DSL service foresters will not do any of the field work such as cruising and marking trees, obtaining a logger, writing the contract, or administering the sale. DSL primarily provides the initial contact with a landowner who is contemplating management of his/her land. The service forester will provide general information and, if deemed necessary, advise the landowner to contact a consultant forester. A landowner usually does not obtain the services of a consultant forester until specific management decisions have been made. In fiscal year 1991-92 there were 18 consultant foresters listed in the "Montana Directory of Consultant Foresters" produced by the Department of State Lands.

Conclusion

We believe the department should review overall forestry priorities and determine if there is a need for the Private Forestry Assistance Program since there are consultant foresters who can provide essentially the same services. If it is determined there is a need for the program, the department should determine the basis for funding the program. We believe the landowners who use the program should be charged fees commensurate with the General Fund costs of operating the program.

Recommendation #2

We recommend the Department of State Lands determine:

A. The need for the Private Forestry Assistance Program, and

B. If needed, seek legislation to charge private landowners fees for consultation.

Chapter V
Nursery and Grounds Program

Introduction

The Nursery and Grounds Bureau is responsible for providing low cost seedlings for sale to landowners for reforestation and conservation plantings, and maintaining the building and grounds in Missoula. The nursery program grows seedlings for reforestation on forested trust land, and for reforestation and conservation plantings on private forest, range, and agricultural lands.

The Nursery and Grounds Bureau also coordinates work projects and training for residents of the Swan River Forest Camp administered by the Department of Corrections and Human Services. The Building and Grounds Program maintains the necessary working facilities for the Forestry Division and Southwest Land Office.

The following sections discuss the nursery program for reforestation and conservation plantings on private land, and the work program at the Swan River Forest Camp. We reviewed these programs because they did not appear consistent with the mission of the division to protect and manage Montana's forest resources. We did not review the nursery program for reforestation on forest trust land since it is funded from money collected from timber sales on trust lands and fits in with the mission of the division. We also did not review the grounds program which serves a necessary function but is not related to the scope of our audit work.

Creation of the State Forest Tree Nursery

The State Forest Tree Nursery was established in 1928 to grow seedlings for conservation plantings. The nursery was located on the campus of the University of Montana in Missoula. Board of Forestry meeting minutes indicate the nursery was originally under the control of the State Forester, but due to lack of interest on the part of the state, the land was combined with the Forest and Range Experiment Station in Missoula.

In the early 1950s the tree nursery was moved to the west side of Missoula on land acquired by the university. During this time, the nursery operation was a part of the Montana Forest and

Conservation Experiment Station, under the jurisdiction of the University of Montana, School of Forestry.

In July 1962 the Board of Forestry discussed moving jurisdiction of the nursery from the university to the State Forester. The university questioned if growing and selling trees was a proper function of a university research station. Also, the nursery needed capital expenditures and this was depleting moneys for research. Members of the board believed the nursery needed promotion by having someone in the field to explain the operation. Control of the nursery passed from the university to the Office of the State Forester on July 1, 1963.

In 1966 the State Forester obtained additional land to meet the increasing needs of farmers and ranchers for windbreaks and shelterbelts, and for reforestation needs on trust lands.

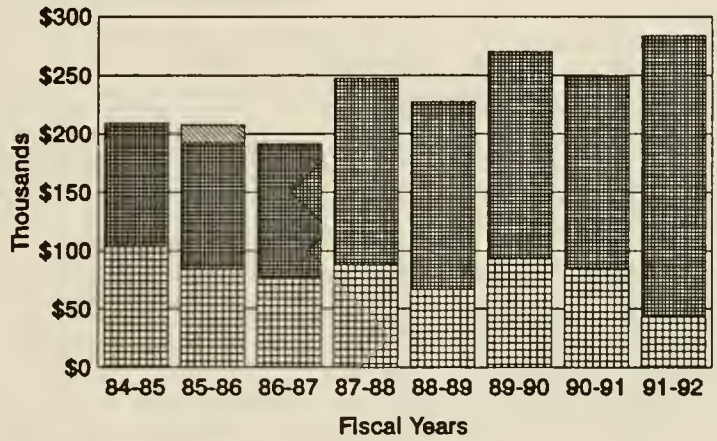
Conservation Planting Program FTE and Expenditures

In fiscal year 1991-92, 2.4 permanent Full-Time Equivalents (FTE) in the Nursery and Grounds Bureau were budgeted to produce seedlings for conservation plantings, which includes reforestation on nontrust land. Approximately 6 seasonal FTE were also budgeted to help grow the seedlings.

Conservation Planting Program Expenditures

Funding for the Conservation Planting Program is provided through the General Fund and State Special Revenue money generated by selling seedlings. The following chart shows expenditures, by funding source, for fiscal years 1984-85 through 1991-92.

Figure 13
Expenditures for Conservation Planting Program
(Fiscal Years 1984-85 through 1991-92)



Source: Compiled by the Office of the Legislative Auditor from Statewide Budgeting and Accounting System records

All of the General Fund money, approximately $43,000 in fiscal year 1991-92, is used to grow bareroot hardwood plants for conservation plantings. One-half to two-thirds of the State Special Revenue funds are used to grow conifers sold in the program; the remaining money funds bareroot hardwood expenditures, and generates a fund balance to be used for special projects, such as increasing the size of the greenhouses. The federal funds received were used primarily for tree improvement.

What is the Purpose of the Program?

The purpose of the Conservation Planting Program is to provide low cost seedlings for establishment of shelterbelts around homes, buildings, and livestock feeding areas of agricultural producers; wildlife plantings; field windbreaks; living snowfences; energy conservation; Christmas tree production; critical area plantings such as for erosion control and soil stabilization; and reclamation plantings. Most of the plants, and the majority

of the orders for plants, are for conservation plantings. The following chart shows, for fiscal years 1988-89 through 1991-92, the number of plants sold, and the number of orders, for the various purposes of the seedlings.

Table 14
Number of Sales and Orders for Seedlings
(Fiscal Years 1988-89 through 1991-92)

	1988-89		1989-90		1990-91		1991-92	
Types of Sales	Plants Sold	Number Orders	Plants Sold	Number Orders	Plants Sold	Number Orders	Plants Sold	Number Orders
Conservation Sales	983,855	1,185	849,612	1,404	807,375	1,346	701,425	1,391
Reforestation Sales	497,350	37	568,598	30	293,025	21	438,050	60
Nonprogram Sales*	44,875	104	38,700	91	51,275	215	48,675	151
TOTAL SALES	1,526,080	1,326	1,456,910	1,525	1,151,675	1,582	1,188,150	1,602

*Sales of seedlings remaining after filling orders for conservation and reforestation plantings.

Source: Compiled by the Office of the Legislative Auditor from Department of State Lands' records

The following chart shows the number of seedlings sold for conservation purposes under the Conservation Planting Program by county for fiscal years 1988-89 through 1991-92.

Table 15

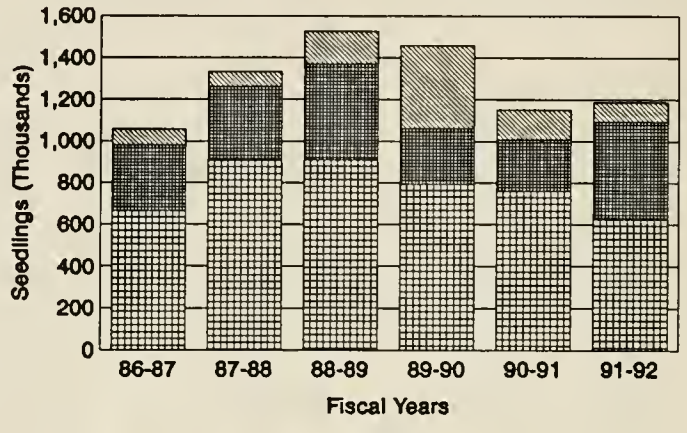
Number of Seedlings Sold, by County, for Conservation Purposes
(Fiscal Years 1988-89 through 1991-92)

County	Fiscal Years 1988-89	1989-90	1990-91	1991-92
Blaine	5,175	16,575	1,500	25,325
Carter	33,700	4,875	8,400	7,200
Cascade	78,050	80,325	48,675	39,525
Chouteau	31,175	18,025	32,300	10,575
Daniels	11,975	11,700	15,100	12,500
Dawson	9,175	12,100	16,025	25,100
Fallon	15,225	12,200	8,750	14,250
Fergus	32,875	42,825	30,775	30,300
Flathead	25,325	16,000	15,525	23,675
Gallatin	20,900	18,950	22,150	20,825
Glacier	40,975	22,300	18,325	16,775
Golden Valley	13,875	25,125	15,900	300
Hill	44,500	40,300	63,050	64,775
Judith Basin	18,250	30,350	36,775	31,450
Lewis & Clark	9,080	17,350	13,925	23,300
Liberty	81,900	8,975	26,825	9,150
McCone	18,525	6,600	12,125	7,400
Park	14,825	18,125	10,700	16,075
Phillips	26,400	23,200	34,500	19,500
Pondera	17,625	14,500	22,425	12,625
Prairie	2,325	13,350	2,050	3,300
Ravalli	18,850	18,750	16,575	23,675
Richland	7,775	10,950	15,300	25,550
Roosevelt	55,550	35,937	10,450	3,900
Sheridan	18,825	36,750	35,675	14,450
Stillwater	8,900	11.050	13,775	5,025
Teton	14,975	34,525	19,725	12,325
Toole	185,075	53,875	59,875	44,700
Valley	14,700	82,800	27,175	21,775
Other Counties	108,350	111,225	153,025	136,100
TOTAL	983,855	849,612	807,375	701,425

Source: Compiled by the Office of the Legislative Auditor from Department of State Lands' records

Most of the plants sold for conservation plantings are bareroot hardwoods. Bareroot conifers and conifers grown in containers are primarily sold for reforestation on nontrust land, and are also sold for conservation plantings. The following chart shows the number and types of trees sold to landowners for fiscal years 1986-87 through 1991-92.

Figure 14
Number and Types of Seedlings Sold
(Fiscal Years 1986-87 through 1991-92)



Source: Compiled by the Office of the Legislative Auditor from Department of State Lands' records

Who Can Purchase Trees Through the Program?

To be eligible to purchase trees under this program, a landowner must have 10 or more acres on which the plants are to be used. Plant materials are not available to homes and acreages in towns, cities, rural subdivisions, or other nonagricultural producers, except for the purpose of wildlife, critical area, and Christmas tree production planting. Plants also cannot be used for ornamental, landscaping, or other urban purposes when those purposes are the only reasons for buying plants. Also, people who buy seedlings through the program cannot resell the plants. No out-of-state sales are made. A minimum of 250 plants must be ordered under the program.

The Montana Extension Service, through the County Extension Agent offices in various counties, acts as the "clearing house" for placement of orders and distribution of plants within the counties. Field offices of the United States Soil Conservation Service and the Department of State Lands (DSL) also process

applications for seedlings. The agent that processes the application must sign the application, along with the landowner.

DSL also sells plants to other state agencies. Reclamation Division, DSL, purchases trees through the program for reclamation of mine sites. The Department of Fish, Wildlife, and Parks purchases trees for upland game bird habitat projects. In previous years the Department of Transportation has purchased plants. Private conservation organizations have also purchased plants from DSL.

Any plants still unsold after February 28 (the deadline for submitting orders under the program) are sold on a first-come, first-serve basis. These sales are considered nonprogram sales since the sales are made after the program deadline and people are not assured the number and types of trees they want are available. Program rules, such as not reselling the trees or using them as ornamentals, are not applicable. The seedlings are sold to Montana customers, including private nurseries. Purchasers are still required to order a minimum of 250 seedlings. As can be seen in Table 14, the number of plants sold after the deadline is less than 5 percent of all plants sold through the program.

Questionnaire Results Indicated Experience with Program Satisfactory

To help us evaluate the Conservation Planting Program, we sent a questionnaire to a random sample of people who purchased trees through the program in 1990. The responses indicated the program is well received by purchasers of seedlings. Of the 268 people who responded (we sent 387 questionnaires), 258 said they would buy trees/shrubs from the State Forest Tree Nursery again. One hundred forty (52 percent) of the respondents rated their experience with the program as highly satisfactory, and 116 (43 percent) rated it as satisfactory. We asked people why they purchased trees from the State Forest Tree Nursery. One hundred seventy-one (64 percent) indicated they purchased trees from DSL because seedlings were less expensive, 57 (21 percent) indicated seedlings were of better quality, and 94 (35 percent) said they could get the species they wanted/needed. At the end of the questionnaire we asked for additional comments concerning the program. Of the 133 comments, 59 related to how happy

people were with the program and how they think the program is very good. (For a compilation of the questionnaire results see Appendix B.)

Is it Appropriate for DSL to be Involved in MITOSIS?

The focus of the Montana Inter-Agency Tree or Shrub Improvement Study (MITOSIS) is on conservation plantings of hardwoods and conifers to grow in the dry land climate of eastern Montana for erosion control, wildlife habitat, windbreaks, etc. We found there are no other studies in Montana researching trees and shrubs. Montana State University evaluates long grasses and ornamentals, and the University of Montana conducts research on conifers. We believe this involvement is appropriate given DSL is selling seedlings for conservation plantings. The following sections describe the MITOSIS program.

What is MITOSIS and Why is DSL Involved?

DSL, in cooperation with the United States Soil Conservation Service (SCS) and the United States Forest Service, participates in the Montana Inter-Agency Tree or Shrub Improvement Study (MITOSIS). The intent of the program is to develop a coordinated effort among agencies to select and evaluate hardier conifers and hardwood trees and shrubs needed to carry out the agencies' conservation programs. The purpose of the program is to provide customers in a particular geographic area in Montana seedlings best suited to survive the climate for that area.

The program was developed in response to concerns raised by the Montana Nurserymen's Association. The association had concerns relating to the appropriateness of particular species distributed by the DSL nursery. The nurserymen contended DSL did not know the source of the seed used for growing seedlings. The Board of Land Commissioners discussed the issue at its February 1973 meeting.

DSL's role in the program is essentially to obtain and start seedlings from plants which have been proven to be adapted to a geographic area and then sell the seedlings to landowners in that area. Plants which are determined to be suitable for an area are supposed to be able to withstand the climate in that particular

region of the state better than other plants of the same species. The improved seed is not only used by DSL, but is also distributed to interested private nurserymen.

The SCS provides the majority of information concerning which species are adapted for specific sites. This is done through a test program which evaluates the sources of the site adapted seeds and other seeds. DSL's goal is to know the seed sources for all species of seedlings produced for sale and information gathered under MITOSIS program helps the department meet that goal.

Need and Funding of Program

During our audit we developed questions concerning the funding and need for the Conservation Planting Program. We found the program is funded partially by General Fund money but only a limited number of the people can purchase seedlings through the program. Also, there are private nurseries which can provide seedlings. Our concerns and recommendations are discussed in the following sections.

How Should the Program be Funded?

When the Conservation Planting Program was created it was under the jurisdiction of the University of Montana and was partially funded with federal money. The university did not want the nursery since it was draining funds from research conducted at the school, so jurisdiction was transferred to the State Forester. Federal funds are no longer received to help finance the program so General Fund money is used to keep the cost of seedlings low. When the Montana Nurserymen's Association questioned the source of seed used to start seedlings, DSL became involved with MITOSIS, which is funded entirely from the General Fund. The funding for these two programs is discussed in the next sections.

Chapter V
Nursery and Grounds Program

Funding of the Conservation Tree Nursery Program

The purpose of the Conservation Planting Program is to sell low cost seedlings for conservation plantings. In 1992 plants sold under the Conservation Planting Program cost landowners $20 per hundred seedlings for bareroot plants, $20 per hundred seedlings for conifers grown in four cubic inch containers, and $60 per hundred seedlings for conifers grown in 30 cubic inch containers. When jurisdiction of the nursery transferred to the State Forester, the cost of seedlings was approximately six or seven cents each. The low cost was possible due to federal funding. With loss of federal funding, rising costs of production due to inflation, and reduction in General Fund support, the cost of seedlings has slowly increased. The following chart shows the cost of seedlings from fiscal year 1983-84 through 1991-92.

Table 16
Cost of State Forest Tree Nursery Seedlings
(Fiscal Years 1983-84 through 1991-92)

Fiscal Year	Bareroot	Four Inch Container	Thirty Inch Container
1991-92	$0.20	$0.20	$0.60
1990-91	$0.17	$0.17	$0.50
1989-90	$0.17	$0.17	$0.50
1988-89	$0.17	$0.17	$0.50
1987-88	$0.17	$0.17	$0.50
1986-87	$0.17	$0.17	$0.50
1985-86	$0.14	$0.15	$0.44
1984-85	$0.14	$0.15	$0.44
1983-84	$0.13	$0.13	$0.44

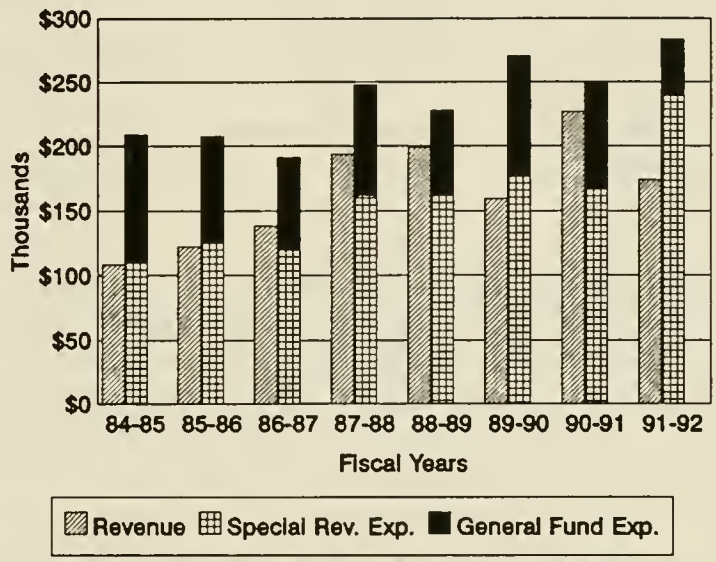
Source: Compiled by the Office of the Legislative Auditor from Department of State Lands' records

The increase in prices in fiscal year 1991-92 was due to the decrease in General Fund appropriation during the January 1992 special session of the legislature.

General Fund moneys are used to supplement the Conservation Planting Program since the selling price of hardwoods, even with the increase in price in fiscal year 1991-92, does not cover the cost of growing, packaging, and distributing plants. The following chart shows program costs, by fund source, compared to revenue generated from sales of seedlings for the

Conservation Planting Program for fiscal years 1984-85 through 1991-92.

Figure 15
Comparison of Revenues and Expenditures
for Conservation Seedlings
(Fiscal Years 1984-85 through 1991-92)



Source: Compiled by the Office of the Legislative Auditor from Department of State Lands' & Statewide Budgeting & Accounting System Records

Since the department is unsure of the revenue which will be generated each year, General Fund money is expended before State Special Revenue money. Due to funding from the General Fund, the Conservation Planting Program has generated a fund balance. In fiscal year 1990-91, there was a fund balance of approximately $146,000. This fund balance will be reduced in fiscal years 1991-92 and 1992-93 to offset reduction in General Fund support authorized by the legislature in the January 1992 Special Legislative Session. The fact General Fund money is spent before State Special Revenue was discussed in the financial-compliance audit of DSL for fiscal years ended June 30, 1990 and 1991 (91-13).

Funding for MITOSIS

DSL's participation in MITOSIS is funded entirely from the General Fund. The following chart details expenditures for fiscal years 1984-85 through 1991-92 for MITOSIS.

Table 17
Expenditures for MITOSIS
(Fiscal Years 1984-85 through 1991-92)

Fiscal Year	Expenditures
1991-92	$17,980
1990-91	$27,387
1989-90	$33,424
1988-89	$23,611
1987-88	$33,644
1986-87	$12,288
1985-86	$17,080
1984-85	$20,834

Source: Compiled by the Office of the Legislative Auditor from Statewide Budgeting and Accounting System records

Do Other Organizations Sell Seedlings?

Private nurseries in Montana and in other states sell the same species of seedlings as DSL. Seedlings from other states would not be grown for specific regions of the state. Currently, some of DSL's seedlings are grown for particular geographic areas of Montana.

In comparing state seedling costs with private nursery seedling costs we found seedlings sold by the State Forest Tree Nursery can be purchased at other nurseries although the cost might be higher than those sold by the state. We were not able to do specific comparisons since prices vary according to the age of the seedlings when they are sold by different organizations. Usually, older seedlings sell for more since they are maintained by the nursery for longer periods of time.

Conclusion

Few people directly benefit from the Conservation Planting and MITOSIS Programs due to restrictions for use of seedlings, acreage needed, and the minimum number of seedlings which must be ordered. Although purchasers pay for the majority of expenditures of the Conservation Planting Program, the general public is subsidizing both programs through use of General Fund money. The programs do provide an indirect benefit to the citizens of Montana, thus possibly justifying the use of General Fund money. Through these programs there are more trees in the state, better erosion control, windbreaks, and more wildlife habitat.

We determined it would cost the average purchaser (250 to 300 bareroot hardwoods purchased) an additional $26 if the price of bareroot hardwood seedlings was increased to cover costs of growing, packaging and distributing seedlings, and the costs of the MITOSIS Program. The price of bareroot hardwood seedlings would have to average approximately 25 cents (compared to the current price of 20 cents) to cover costs of the Conservation Planting and MITOSIS Programs. The Conservation Planting Program should pay for work conducted by MITOSIS since the benefits of MITOSIS is applicable to the former program.

We believe the department should review overall forestry priorities and determine if there is a need for the sale of conservation planting seedlings since there are other organizations which can provide seedlings. If it is determined there is a need for the program, the department should determine the basis for funding the program. We believe people who use the program should pay for the seedlings provided. Purchasers should be charged for the actual costs to produce the seedlings.

Recommendation #3

We recommend the Department of State Lands determine:

A. **The need for the sale of conservation planting seedlings, and**

B. **If needed, charge purchasers the actual costs to produce the seedlings.**

Institutional Forestry Work Program

The Institutional Forestry Work (IFW) Program is a joint program between the Department of State Lands and the Department of Corrections and Human Services. It was established to provide work for residents of the Swan River Forest Camp. Since its inception, the role of the camp has changed, but the IFW Program has remained virtually the same. This change of direction by one agency but not the other has created some concerns in both departments. The following sections discuss the camp and the IFW Program, and concerns raised during the audit.

Why Was the Swan River Camp Created?

In 1965 the legislature appropriated money to the Department of Institutions (now Corrections and Human Services [DCHS]) to construct a Forest Youth Camp. Juvenile boys between the ages of 16 and 18 were to be sent to the camp. The purpose of the camp was to alleviate the necessity of increasing the size of the State Industrial School for Boys (now Pine Hills School for Boys) at Miles City. The project was designed as a minimum security unit for the care and treatment of 50 juvenile delinquents. The project was designed to exclude "Youth with known or strongly suspected homosexuality; security risks; psychotic and severely neurotic; severely schizoid; strong inability to relate to adults; medical problems; history of long standing aggravated and/or

serious delinquencies, particularly aggressive acts; history of accident-proneness; and history of drug or barbiturate addiction . . ."

The Board of Institutions requested the State Forester recommend a site in Montana for the camp. The board wanted a year round job load, forest management, recreation, and related multiple uses be available for a period of 50 to 100 years. The board believed the work should be on trust forest land with a minimum amount of travel involved to and from the job. The State Forester recommended the Swan River State Forest.

How Has the Camp Changed Since 1967?

The Swan River Forest Camp (SRFC) is now responsible for developing and maintaining a treatment/work program for adult male offenders between the ages of 18 and 30 who are committed to the camp's care and custody in a small institutional setting. The purpose of the camp is to provide treatment and rehabilitative services which will enable a smooth, successful transition into the mainstream of society. The camp now provides security, supervision, one-on-one counseling, educational opportunities, psychological services, work and vocational training programs, group treatment programs for drug and alcohol addiction, and parole planning for each resident.

What is the Role of the IFW Program?

In 1967 the legislature enacted section 53-30-205, MCA, which directs the Department of State Lands to provide a work program to be carried out with cooperation between DSL and the camp superintendent. In compliance with this law, DSL developed and carries out the IFW Program. This is an on-the-job work training program which includes the use of forestry tools, tree planting tools, and power and hand woodworking tools. The residents also receive fire suppression training and carpentry training. The residents thin timber, plant trees, build picnic tables and selected office furniture, make wooden signs, construct trails, suppress fires, clear roads, and do maintenance work on the grounds and buildings at the Swan Unit and camp. The following table shows the types of work completed, and the estimated values of the work, for five fiscal years. The work is

listed by specific activities which benefit trust land, and other activities performed by the inmates.

Table 18
Estimated Value of IFW Program Accomplishments
(Fiscal Years 1987-88 through 1991-92)

Accomplishment	1987-88	1988-89	1989-90	1990-91	1991-92
Training, fire	$ 10,661	$ 7,357	$ 18,512	$ 6,802	$ 7,924
Training, chainsaws	$ 0	$ 0	$ 948	$ 603	$ 0
Fire equip maint.	$ 1,731	$ 629	$ 1,196	$ 7,103	$ 4,008
Equip. maint.	$ 3,619	$ 2,085	$ 3,505	$ 3,918	$ 4,100
Vehicle maint.	$ 2,124	$ 1,888	$ 1,814	$ 4,305	$ 3,225
Road maint.	$ 8,446	$ 13,045	$ 21,910	$ 22,103	$ 26,765
Trail/campground maint.	$ 1,050	$ 472	$ 14,925	$ 5,123	$ 5,943
Construction projects	$ 13,300	$ 6,700	$ 182	$ 3,114	$ 5,200
Salvage Cleanup	$ 0	$ 0	$ 0	$ 16,450	$ 0
Controlled burns	$ 4,524	$ 5,586	$ 7,174	$ 4,391	$ 553
Thinning	$ 39,577	$ 34,401	$ 38,304	$ 53,639	$ 63,130
Miscellaneous	$ 3,737	$ 511	$ 0	$ 990	$ 2,619
Planting	$ 3,737	$ 10,573	$ 2,622	$ 17,041	$ 33,305
Fires	$ 33,588	$ 66,706	$ 14,349	$ 21,089	$ 36,336
Total Trust Land Management	$126,094	$149,953	$125,441	$166,671	$193,108
Sawmill Projects	$ 40,704	$ 33,554	$ 23,711	$ 30,593	$ 35,152
Maintenance Swan Unit/SRFC	$ 76,649	$ 32,821	$ 38,193	$ 33,823	$ 25,861
Construction Projects	$ 15,295	$ 16,604	$ 13,423	$ 10,251	$ 17,341
Community Projects	$ 14,173	$ 5,861	$ 12,436	$ 9,924	$ 13,077
GRAND TOTAL	$272,915	$238,793	$213,204	$251,262	$284,539
Total Expenditures	$181,569	$182,194	$198,866	$196,422	$210,385
Trust Land Management as a Percent of Total Spent	69.45%	82.30%	63.08%	84.85%	91.79%

Source: Compiled by the Office of the Legislative Auditor from Department of State Lands' records

As can be seen in the above chart, about 60 to 90 percent of the projects benefit trust land. The remaining work benefits other unit offices (construction projects include building bookshelves, computer cabinets, and map cases), and maintenance of the Swan Unit and the Forest Camp. The program is funded entirely from the General Fund.

Is There a Need for an IFW Program?

During our audit we questioned why DSL was administering the Institutional Forestry Work Program. This question became more evident when we reviewed the roles of the IFW Program and those of the camp. The following section discusses our concerns.

The Programs Have Differing Goals

Our review of the Institutional Forestry Work Program showed the two departments involved in the program have differing goals. As noted above, the role of the camp has changed significantly since its inception. The camp now accepts individuals under the age of 30, instead of juveniles 16 to 18; provides treatment programs for drug and alcohol addiction whereas before people with a history of drug or barbiturate addiction were not admitted; and the camp now provides vocational training and educational opportunities. Current goals of the camp include: 1) providing treatment and training programs that recognize individual differences which endeavor to meet individual needs; and 2) providing for an individual education program which includes basic level education and vocational training.

In contrast, the role of the IFW Program has not changed substantially since it was created to teach juveniles good work habits. The general impression of DSL staff is that the IFW Program is to increase the residents' self-esteem and create good work habits, and any benefit to trust land via tree planting, thinning, road clearing, etc., is secondary.

Inmates at the camp participate in recommended treatment programs to help individuals gain insight into the reason for their incarceration and to provide training to prevent future criminality. Individual treatment plans are developed to address the resident's weaknesses and develop strengths. The vocational teachers at the camp incorporate the treatment plans (such as anger control) into their instruction. The treatment plans are not incorporated into work completed when inmates are under the supervision of DSL staff.

Personnel in both departments are questioning the role of the IFW Program and its relation to the camp. Several meetings have been held in which participants from both departments have questioned the legal mandates of the camp and the IFW Program, and changes needed in the IFW Program to compliment changes occurring in the camp.

One of the questions under consideration is the correctional authority of DSL employees over inmates. At the time of our audit, DSL employees had no correctional or disciplinary authority over inmates. This causes employees some concern since inmates are under the supervision of DSL employees every day. Employees are not sure how much authority they have to discipline any inmates who cause trouble. This is also a problem for DSL employees when inmates are fighting a fire in a location away from the Swan Unit.

We believe the Department of Corrections and Human Services should determine if there is still a need for the IFW Program. If it is determined the program is still beneficial to the inmates of the camp, DCHS and DSL should review DSL's role and make any necessary changes.

Recommendation #4

We recommend:

A. **The Department of Corrections and Human Services determine if there is a need for the Institutional Forestry Work Program, and**

B. **If there is a need, the Department of Corrections and Human Services and Department of State Lands clarify and specify the latter's role and responsibilities in the program.**

Which Department Should Record the IFW Program Funding?

If there is a need for the Institutional Forestry Work Program, we question where expenditures for the program should be recorded. Currently, expenditures are shown in the Department of State Lands' budget. The benefits of the program are directed at the inmates of the Swan River Camp, yet there is no indication in Corrections' budget of the additional correctional work. Funding was established in the present form due to legislation passed in 1967. We believe expenditures for the program should be included in DCHS's budget to accurately reflect the actual amount expended for the treatment and rehabilitation of inmates. A contract could then be established between the two departments for inmates to work on trust land.

Recommendation #5

We recommend expenditures for the Institutional Forestry Work Program be recorded in the Department of Corrections and Human Services' budget rather than the Department of State Lands' budget.

Agency Response

DEPARTMENT OF STATE LANDS

STAN STEPHENS, GOVERNOR

STATE OF MONTANA

(406) 444-2074

1625 ELEVENTH AVENUE
HELENA, MONTANA 59620

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CAPITOL STATION
LEGISLATIVE AUDITOR

November 9, 1992

Mr. Scott Seacat, Legislative Auditor
Office of the Legislative Auditor
State Capitol
Helena, Montana 59620

Dear Scott:

Attached is the Department of State Lands' responses to the Performance Audit of the Management of Forested Trust Lands. We believe that this audit will be beneficial in helping members of the Legislature, as well as others interested in our programs, better understand our Forestry Division, Forest Management Programs.

We appreciate the cooperation and courtesy afforded us by your staff during the audit. If you have any questions regarding our response, please contact Jeff Jahnke at our Forestry Division office in Missoula.

Sincerely,

Dennis D. Casey, Commissioner
Department of State Lands

jc

Attachment

cc: Don Artley
Jeff Jahnke

"AN EQUAL OPPORTUNITY EMPLOYER"

Recommendation #1:

We recommend the Department of State Lands:

A. Complete its detailed inventory of trees on forested state trust land which will help them better define biological sustained yield;

B. Develop a longer range plan which estimates sustained yield for more than two years and takes into consideration access constraints and environmental and legal requirements, all of which affect the amount of timber which can be harvested over the long run;

C. If it appears DSL can harvest more timber, request additional resources. The result would be increased money to the trust and a harvest level which is not above biological sustained yield; and

D. Continue to evaluate and implement other methods of deriving revenue from forested trust land.

Agency Response

We Concur

The latest state and private land inventory was completed in 1989 by the USDA Forest Service, Intermountain Station, and final statewide results became available early in 1992. These results will be used to identify appropriate annual harvest levels using the process described below.

Two activities have been initiated to address recommendation B.

The Forestry Division has begun a Statewide Forest Management Plan to identify the most appropriate uses of state forest land in accomplishing the mission described in the audit.

Concurrent with development of the statewide plan, we will develop the process for determining the appropriate annual harvest level. A couple different tools will be used in this process. First, allowable cut will be re-calculated using the area/volume check method. Second, the Montana Timber Market Model (MTMM) will be used to calculate an appropriate or desirable harvest level. Using MTMM will be particularly valuable to simulate the harvest implications of different statewide plan alternatives. For comparison, allowable cut using some of the traditional, simple

formulas (e.g. Kemp's, Von Mantel's, Hanzlik's etc.) may be calculated. We expect to have the process developed and preliminary harvest calculations completed in the first quarter of 1993.

The Department developed a proposed program modification to the forest product sales program for the FY94-95 Biennial Budget which was not pursued due to budgetary concerns. The Department will evaluate the results of the two planning efforts described in recommendation B. above and propose appropriate program modifications and changes as part of planning for the 1995 Legislative session.

An important purpose of the State Forest Management Plan described above is to identify alternative methods of deriving revenue from forested trust lands. The plan will serve as a vehicle to decide on an appropriate mix of these uses. At this time the forest management plan has been through two rounds of scoping and issue identification. Currently, alternatives are being identified from the issues and the first draft of the alternatives should be completed during the first quarter of 1993. The draft alternatives will then be circulated for comments. Completion of the plan is projected for fall, 1993.

Recommendation #2

We recommend the Department of State Lands determine:

A. The need for the Private Forestry Assistance Program, and

B. If needed, seek legislation to charge private landowners fees for consultation.

Agency Response

We Concur

As a consequence of the reductions in spending resulting from the legislative special sessions during 1992, the Division of Forestry has begun an internal review of the need for a general funded Private Forestry Assistance program. Discussions will continue during the 1993 legislative session and may result in the reduction or elimination of general funds from this program.

While we concur with this recommendation, it is unclear whether landowners would be willing to pay for the kind of service the Division of Forestry provides (see Page 71). The Forestry Division intends to actively pursue

alternative methods of providing these services if they are determined to be needed.

RECOMMENDATION #3

We recommend the Department of State Lands determine:

A. *The need for the sale of conservation planting seedlings, and*

B. *If needed, charge purchasers the actual costs to produce the seedlings.*

Agency Response

We Concur

The Forestry Division has established an advisory committee made up of nursery stock users, private producers and public agencies. The purpose of this advisory group is to provide recommendation to the Division concerning the purpose and need for the State Forest Nursery. If appropriate, the committee would also suggest appropriate operating procedures to accomplish the agreed upon nursery objectives. The first meeting of this committee is scheduled prior to the end of 1992.

The Forestry Division agrees that the actual cost of the seedlings should be charged. The Division, with the assistance of the advisory committee described above will identify the need and appropriate objectives for the state forest nursery. If appropriate, the Division will explore alternative to producing the desired seedlings without the use of general funds.

RECOMMENDATION #4

We recommend:

A. *The Department of Corrections and Human Services determine if there is a need for the Institutional Forestry Work Program, and*

B. *If there is a need, the Department of Corrections and Human Services and the Department of State Lands clarify and specify the latter's role and responsibilities in the program.*

Agency Response

We Concur

The Department has initiated discussions with the Department of Corrections and Human Services regarding the IFW program. They have determined that a forestry work program is a necessary component of their rehabilitation program. The Department of Corrections and Human Services and the Department of State Lands are in the process of clarifying the roles and responsibilities of each department.

RECOMMENDATION #5

We recommend expenditures for the Institutional Forestry Work Program be recorded in the Department of Corrections and Human Services budget rather than the Department of State Lands' budget.

Agency Response

We Concur

The Department of State Lands with the Department of Corrections and Human Services, is currently exploring various alternative ways to budget and record expenditures for the IFW program. Agreed upon changes will be phased in and will likely be completed during the 96-97 biennium.

Appendices

APPENDIX A

Office of the Legislative Auditor

USERS OF PRIVATE FORESTRY ASSISTANCE PROGRAM

Questionnaires were sent to a sample of 187 people who had requested assistance through the Private Forestry Assistance Program in 1990 or 1991. Approximately 73 percent of the people responded. Comments were requested on many questions. Written comments were numerous and varied, and are not listed in this appendix. NR indicates the person did not respond to the question.

1. How did you learn about the Private Forestry Assistance Program? (Please check one)
   - 45 Friend, relative, neighbor
   - 0 Newspaper
   - 8 County Extension Agent
   - 16 Soil Conservation Service
   - 39 Department of State Lands representative
   - 15 Do not remember

2. Which Private Forestry Assistance Program services provided by the Montana Department of State Lands have you used? (Check all that apply)
   - 45 Land Management Plan (evaluation and recommendations for activities on the land)
   - 83 Timber Stand Improvement (technical assistance in thinning, weeding, pruning, fertilization, prescribed burning, animal or pest control)
   - 21 Tree Planting (assistance in tree planting, replanting, or reinforcement planting)
   - 53 Timber Sale Assistance (assistance in the layout of a timber sale, preparation of the timber for sale, etc.)
   - 2 Urban Area Assistance (assistance in urban and community forestry activities)
   - 33 Forest Pest Assistance (assistance in the prevention or suppression of forest insect and disease pests)
   - 6 I was referred to a consultant forester.

3. Why did you contact the Department of State Lands concerning the Private Forestry Assistance Program services? (Please check all that apply)

__11__ I did not want to use a consultant.

__135__ I wanted assistance and/or information concerning:

- __48__ Timber sales
- __55__ Management of the land
- __13__ How to create more grazing land on my land
- __29__ How to derive some extra income from the land through a timber sale or other means
- __36__ Why my trees were dying
- __29__ Establishing or maintaining a tree farm
- __6__ The stewardship program
- __28__ Help in tree planting and thinning costs (federal cost/share programs)
- __24__ How to improve wildlife habitat (attract more wildlife to my land)
- __3__ Erosion problems
- __4__ Water quality problems
- __20__ Reforestation

__2__ Other

4. Did the department representative respond to your request for assistance and/or information in a timely manner?

__134__ YES
__1__ NO
__1__ DO NOT REMEMBER

5. Did you receive information that was useful for the results you wanted?

__133__ YES
__0__ NO
__2__ YES AND NO
__1__ NR

6. Would you use the services provided by the Private Forestry Assistance Program again?

__128__ YES
__3__ NO
__4__ NO OPINION
__1__ NR

7. What is your overall rating of your experience with the Private Forestry Assistance Program? (Please check one)

__81__ HIGHLY SATISFACTORY
__51__ SATISFACTORY
__0__ UNSATISFACTORY
__1__ NO OPINION
__1__ SATISFACTORY AND UNSATISFACTORY
__2__ NR

8. Have you ever used a private consultant forester (a forester not from the Department of State Lands)?

23 YES →

109 NO

4 NR

Were you satisfied with the service provided by the consultant?

20 YES

3 NO

0 NO OPINION

1 YES AND NO

APPENDIX B

Office of the Legislative Auditor

PURCHASERS OF DEPARTMENT OF STATE LANDS NURSERY STOCK

Questionnaires were sent to a random sample of 387 people who had purchased seedlings from the State Forest Tree Nursery in 1990. Approximately 70 percent of the people responded. Comments were requested on many questions. Written comments were numerous and varied, and are not listed in this appendix. NR indicates the person did not respond to the question.

1. How were the trees/shrubs used? (Check all that apply)

198	Windbreak
158	Shelterbelt
58	Soil erosion control and prevention
87	Living snow fence
111	Wildlife habitat improvement
25	Energy conservation
21	Reforestation
3	Christmas tree production
10	Streambank stabilization

2. Does it appear the trees/shrubs will fulfill your intended purpose?

215	YES
27	NO
21	DO NOT KNOW
3	NR
2	YES AND NO

3. Could you have obtained the trees/shrubs from another source?

138	YES →
48	NO
67	DO NOT KNOW
15	NR

What was the potential source? (Check one)

65	In-state nursery
76	Out-of-state nursery
12	Friend/relative/neighbor

Why did you buy the trees/shrubs from the State Forest Tree Nursery? Check all that apply)

171	Less expensive
57	Better quality
94	Could get the species wanted/ needed

4. How did you learn about the State Forest Tree Nursery program? (Please check one)

__59__ Friend, relative, neighbor
__12__ Newspaper
__144__ County Extension Agent
__86__ Soil Conservation Service
__13__ Department of State Lands representative
__8__ Do not remember

5. Would you buy trees/shrubs from the State Forest Tree Nursery again?

__258__ YES
__1__ NO
__5__ NO OPINION
__4__ NR

6. What is your overall rating of your experience with the State Forest Tree Nursery program? (Please check one)

__140__ HIGHLY SATISFACTORY
__116__ SATISFACTORY
__5__ UNSATISFACTORY
__0__ NO OPINION
__7__ NR